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Monograph 3**

Airpower and the 1972 Spring Invasion

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General Editor

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FOREWORD

In our continuing desire to bring to the reader an in-depth look at the use of airpower in Southeast Asia, we present in this volume a truly monumental effort at recounting the myriad of widely separate but not unrelated events and operations that took place during the spring invasion of 1972.

In this monograph, the authors from the Air War College present an illuminating story of the people and machines that fought so gallantly during this major enemy offensive. The authors' breadth of experience in and out of combat enables them to provide a penetrating account of how airpower was brought to bear upon the enemy.

The "Vietnamization" program, begun in 1969, had by March of 1972 reduced U. S. manpower involvement in Vietnam from 500,000 to 95,000. U. S. airpower involvement, however, did not decrease proportionately. Although the South Vietnamese Air Force took up the "lion's share" of the effort, U. S. airmen were still very much involved. During the offensive, their skills, courage and professionalism were tested 24 hours a day, directly contributing to the eventual successful outcome.

The reader should learn from this story that not only is airpower an essential element of any major operation, but that its employment is a team effort. More so, it involves men and women on the ground as well as in the air -- one cannot function without the other.

William V. McBride
WILLIAM V. McBRIDE, General, USAF
Vice Chief of Staff



"...TO ALL WHO SERVED"

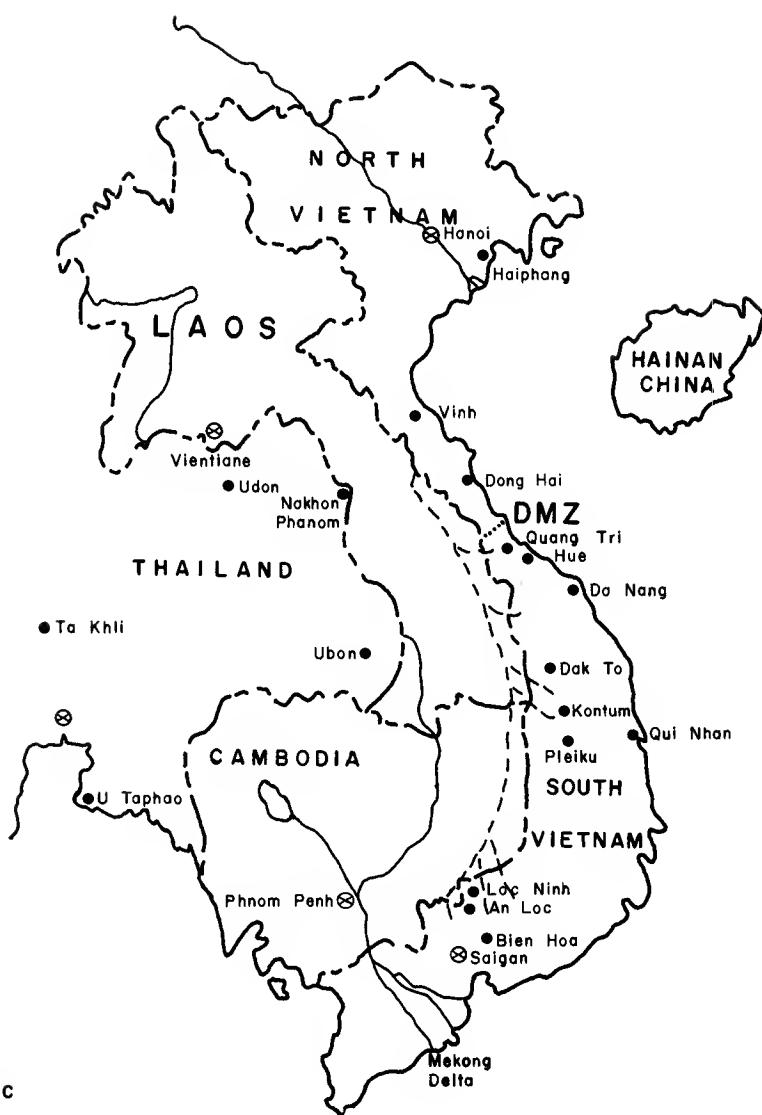
MONOGRAPH 3

Airpower and the 1972 Spring Invasion

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SOUTHEAST ASIA



Acknowledgments

With one exception, the authors of this work served in Southeast Asia, several during the 1972 Campaign. Their collective combat experiences give a special authenticity to this account. They believe that the response of American air and naval power to meet the challenge was decisive in first blunting, then breaking the momentum of the Communist steamroller. They further believe that theirs is a story which every American should know, regardless of opinions on the larger aspects of the war. This is a history of airpower and airmen; it is an account of professionalism in which every American can take satisfaction.

The facilities at Maxwell AFB offer a rich variety of source materials for the study of airpower in Southeast Asia. The team that worked on this project especially wishes to recognize the assistance of Mr. Robert B. Lowe and his staff of the Air University Library, Lt Col Malcolm S. Bounds of the Maxwell CORONA HARVEST office, and Mr. Lloyd H. Cornett, Jr., and his staff at the Albert F. Simpson Historical Research Center.

Col Donald T. Hogg served as the student team chief on this project. He richly deserves the thanks of his teammates and their faculty advisor, Colonel Donaldson D. Frizzell.

The Air Force Office of History reviewed the manuscripts and provided facilities during the final editing. Final coordination of maps, photos, and manuscript was by Capt Ashby D. Elmore.

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Contents

INTRODUCTION	1
CHAPTER I: THE OPENING	4
CHAPTER II: THE U.S. GLOBAL RESPONSE	15
CHAPTER III: THE DEFENSE OF MILITARY REGION I ...	31
CHAPTER IV: THE BATTLE FOR MILITARY REGION II ..	59
CHAPTER V: THE BATTLE FOR MILITARY REGION III ..	77
CHAPTER VI: THE IMPACT OF AIRPOWER	105

ILLUSTRATIONS:

Map of Southeast Asia	vi
T-54 tank/T-34 tank	5
PT-76 tank/130-mm. gun	6
Soviet built SA-2 missiles	7
Military Regions of South Vietnam	8
NVA Offensives in Military Regions I and II	10
NVA Offensive in Military Region III	11
U.S. Marine F-4	17
Attack Aircraft Carrier <i>Constellation</i>	18
USAF EB-66 taking off	20
USAF C-141 in flight	21
USAF F-4E carrying Laser Guided Bombs	22
Generals John D. Ryan and William Momyer	23
General Lucius Clay, Major General DeWitt Searles, and Colonel Scott Smith	27
Andersen AFB, Guam showing flight line and B-52's	28
Andersen AFB, Guam showing temporary housing	29
Map of Military Region I	32
OV-10's loaded on ramp	33
NVA AAA High Threat Areas, Military Region I	35
Lt Colonel Gabriel A. Kardong	36
Lt Colonel Iceal E. Hambleton	37

Search and Rescue force	38
Captain Richard M. Atchison	40
Rescue pick-up by an HH-53 "Super Jolly Green Giant"	42
Sgt William B. Patterson	45
Two damaged T-54 tanks near Dong Ha	48
Lt Colonel Ray E. Stratton	52
Map of Military Region I Northern Defense Line	53
AC-130 "Spectre" Gunship	55
Tank being unloaded from a USAF C-5A	57
Map of Military Region II	60
A-1 attacking a Viet Cong position in a heavily forested area ..	61
Battle Areas of Northern Military Region II	62
1st Lieutenant Terry Pfaff	64
Map of Battle for Tan Canh/Dak To	65
Captain Russell T. Olson	66
Colonel Andrew F. Iosue	69
C-130 making an AWADS drop	71
UH-1 helicopter with TOW missiles	73
Map of Military Region III	77
Map of Binh Long Province	78
B-52's releasing ordnance over Southeast Asia	82
Bombs dropped by B-52's impacting in Southeast Asia	83
Results of a B-52 raid in Southeast Asia	84
An A-37 showing various types of ordnance carried	85
ARVN soldiers rigging loads for airdrop at An Loc	87
Crash of a USAF C-130	88
TSgt Charlie Shaub	89
Drawing of the soccer field drop zone at An Loc	90
AC-119 "Stinger" Gunship	93
AC-130 "Spectre" Gunship with the 105-mm. cannon	94
Lt Colonel Stephen Opitz	95
Communist 57-mm. AAA guns	96
Captured Communist 37-mm. AAA gun	96
ARVN defender at An Loc	99
Lt James W. Beaubien	101
T-54 tank lying dead at An Loc	102

TABLES:

I-1 USAF Order of Battle—SVN and Thailand, 31 March 1972	14
II-1 Summary of USAF Tactical Air Deployments	26
II-2 Summary of B-52 Deployments	27
II-3 SEA Tanker Force 1972	29
II-4 USAF Order of Battle—SVN and Thailand, 30 May 1972	30
VI-1 Fixed Wing Strike Sorties in South Vietnam, 1972	106
VI-2 Strike Sorties in SVN, April 1972	106
VI-3 Distribution of B-52 Sorties in SVN, April-June 1972	106
VI-4 USAF Combat Losses in Southeast Asia	107

Introduction: Prelude to Invasion

March 1972. The war was ominously quiet after years of turbulence. War-weary citizens of the South Vietnamese republic looked to the future with hope. Since 1968, Allied programs of "pacification" had taken root, and now seemed to promise security and economic recovery for the yet impoverished countryside. Improved South Vietnamese armed forces, backed by the citizen Regional and Popular Forces, appeared capable of containing the Communist threat. The Communist cause seemed in decline, although guerrillas still harassed the populace in some locales, and North Vietnamese regiments remained active in border and remote areas.

The situation appeared to vindicate the three years of American policy under President Nixon. Since 1969, Nixon had gradually disengaged American ground forces, withdrawing combat units in increments. Simultaneously, an accelerated plan for "Vietnamizing" U.S. war roles had taken form. Both American goals—disengagement and Vietnamization—reflected a broader blueprint for Asian policy sketched by Nixon. Under the so-called Nixon Doctrine, America would aid its Asian allies with materials, technical advice, and if necessary with air and naval power. Beyond this, the nation remained determined to avoid further new commitments of U.S. ground forces.

American military manpower in Vietnam at the end of March 1972 stood at 95,000, down from more than 500,000 three years before. The reductions had been heaviest for the U.S. Army and Marines; USAF strength in Vietnam, at 20,000 was roughly one-third the former peak, but another 27,000 USAF members were stationed in Thailand. The South Vietnamese Air Force (VNAF) now shouldered the brunt of the in-country air war—Allied airstrikes within South Vietnam totalled 4,000 during February 1972, of which 3,300 were flown by VNAF. Meanwhile, the American ground combat role had become wholly defensive.

North Vietnamese leaders could scarcely miss the implications of these trends. Not only did the growing stability in the South weaken the likelihood of eventual Communist victory, but the apparent success of Vietnamization reinforced American willingness to continue heavy fiscal support. Furthermore, the possible re-election of Richard Nixon

in the American Presidential campaign just beginning, promised continuing firmness in American policy toward the war. Thus, from the Communist view, the logic of a bold strike in 1972 was compelling. Battlefield victories on several fronts, at the least, could make wreckage of Nixon's past policies and the public support upon which they rested. And there remained the further hope that initial successes could produce a fast deterioration of South Vietnamese will and ability to resist.

The apparent architect of the 1972 Spring Offensive was General Vo Nguyen Giap, Defense Minister of the DRV. Giap had been an early associate of Ho Chi Minh and had directed the victory over the French at Dien Bien Phu. In 1968, he planned the countrywide Tet Offensive and the extended siege at Khe Sanh, the U.S. Marine base at the northwest corner of South Vietnam. The Allies defeated the Communists in 1968, largely through the heavy application of U.S. airpower. Now, in 1972, Giap again bid for victory, gambling the full strength of the North Vietnamese Army and its weaponry built up over the years at heavy cost.

The ensuing campaign tested two very different systems of war. The government of South Vietnam, on the one hand, maintained over a million men under arms. Over half of these were local paramilitary forces—Regional and Popular Forces. The active Army numbered 414,000 men employed under the operational control of the four corps commanders, each responsible for one of the four military regions of the country. A national strategic reserve, at most times consisting of several brigades of paratroops and Marines, remained subject to Joint General Staff direction. Strategic reserve units were shifted among the military regions to meet immediate contingencies, usually moving by air. A few elite units were trained in long-range patrol tactics and employed in counter-guerrilla actions. Generally, the Army of Vietnam reflected its American training, having learned to rely heavily on air and artillery firepower and to exploit the advantages of helicopter air-mobility. South Vietnamese troops fought well on most occasions, although accounts of indiscipline and panic during the painful 1971 incursion into Laos (LAM SON 719) left nagging doubts as to the Army's real mettle.

The North Vietnamese Army practiced a very different style of war. Air support and air transport had almost no place in Communist methods, which were designed to minimize the effects of Allied air-power. Units moved by night, and incessantly practiced techniques of camouflage; Communist troops knew how to dig in and fortify for safety from Allied firepower. Techniques for delivering automatic weapons fire against low-flying aircraft were well-practiced. Special troops were trained for sapper and shelling attacks on Allied air bases—90 USAF craft had been destroyed in ground attacks since 1962. Communist logistics methods similarly depended on camouflage, dispersion, and night movement. Lacking the kind of mobility possessed

by Allied units, the Communists remained patient and resourceful in building up for regional offensives, and showed great skill in extracting from difficult engagements. Most weaponry was Soviet and Chinese manufactured. Before 1972, tanks had been rarely employed in South Vietnam, anti-aircraft missiles not at all. Although exposed to great privation, Communist troops were well-disciplined and highly-indoctrinated, and often fought well in both attack and defense. Allied psychological warfare campaigns seemed successful at times in causing desertions, but the Communist military forces in the South remained vigorous.

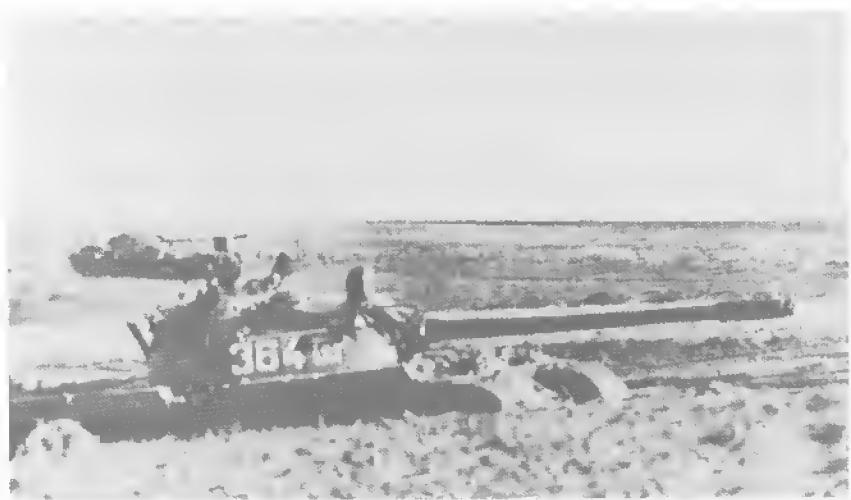
Allied reconnaissance and intelligence reports in late 1971 indicated that the North Vietnamese were undertaking unusual logistics preparations. Aerial photos showed 7,000 to 8,000 trucks in North Vietnamese supply depots and parking lots, apparently loaded with military supplies and waiting for the Laotian trails to dry out. Simultaneously, the North Vietnamese intensified road-building efforts southward from Hanoi and Haiphong. Two fuel pipelines reached from Haiphong toward the DMZ. By early 1972, Allied officers agreed that an early offensive was possible, differing mainly on the timing and extent of the blows. Two approaching events caused the analysts to focus on the middle of February—the occurrence of Tet (the Lunar New Year celebrated in Vietnam), and the scheduled visit of Nixon to the People's Republic of China. Allied aircraft staged a maximum strike effort against suspected enemy buildups in the Pleiku highlands, lasting 24 hours during 12–13 February; a similarly concentrated effort pounded the DMZ region on 16–17 February. Results appeared unimpressive, but the month passed without significant Communist action. Meanwhile, the drawdown of U.S. forces continued on schedule and according to plan.

Chapter One: The Opening

The hammer fell on Easter Weekend, 1972. Soon after midnight, in the early-morning darkness of Good Friday, 30 March, thousands of Communist mortar, rocket, and artillery rounds began battering South Vietnamese positions along the northern border of the Republic. By mid-day, multitudes of North Vietnamese regulars had moved across the so-called Demilitarized Zone (DMZ), assaulting fire bases and linking with other Communist units already to the south. Bewildered by the mass and ferocity of the attacks and the pressures on their communications, the defenders quickly fell back from the advanced posts.

For the next several days, thick overcasts, low ceilings, and rain helped shield the Communists in the DMZ region from air attack. The invasion was open and direct—largely absent were those tactics of camouflage and dispersion typical of Communist methods in the past. Three North Vietnamese divisions—some 40,000 troops in all—delivered the main blows, driving against Quang Tri city and later, Hue. Further weight came from certain weapons seldom or never seen previously in South Vietnam. Among these were the Soviet T-54, T-34, and older PT-76 tanks, the Soviet-made SA-2 and SA-7 anti-aircraft missiles, the Russian 130-mm. gun, and the AT-3 wire-guided anti-tank missile. The 130-mm. gun, with a firing range of 17 miles, was especially effective in sustaining the invasion. Defending the region were largely untested South Vietnamese infantry, reinforced by two brigades of Vietnamese Marines and the local Regional and Popular Forces. Fewer than 9,000 men spread over the northernmost 300 square miles—a force clearly inferior to the attackers.

A second major Communist invasion took form simultaneously, gaining momentum in the forested and rugged highlands north and west of Pleiku. Moderate-scale attacks on the region's fire support bases began on 30 March. Within a few days, pressures intensified on more than a dozen posts, including the ridge positions west of Kontum and Dak To. Communist units threatened the important roadway between Pleiku and Kontum, and on 3 April occupied high ground near the Dak To airfield, bringing it under artillery fire and closing down air operations. By mid-April, the invading force in Military Region II



Soviet T-54 Tank (top), T-34 Tank (bottom).



Soviet PT-76 Tank (top), 130-mm gun (bottom).

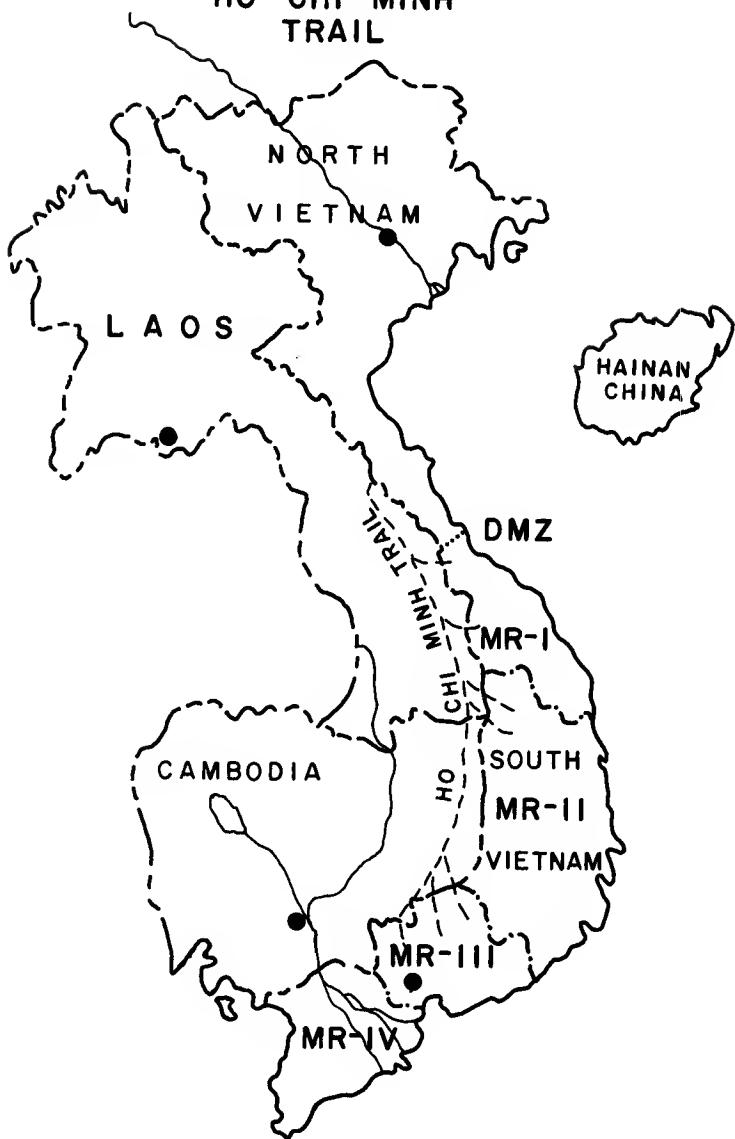
included about 20,000 troops, most of whom had entered Vietnam since the first of the month. Communist objectives included the several bases and towns in the highlands, apparently with the idea of establishing full political control of the region. Other attacks on district towns in coastal regions, and efforts against supply lines connecting Pleiku to the coast, threatened, in effect, to divide Vietnam in half.

Although the South Vietnamese had anticipated the appearance of some tanks in the highlands, the mass and variety of heavy equipment used by the Communists was a surprise. As in Military Region I, the Communists deployed several variations of the T-54 and PT-76, and



Soviet-built SA-2 (note inset) Surface-to-Air missile.

MILITARY REGIONS
of
SOUTH VIETNAM
and
HO CHI MINH
TRAIL



AUL/LC

Military Regions of South Vietnam and Ho Chi Minh Trail.

the track mounted twin 57-mm. anti-aircraft gun with target acquisition radar. The North Vietnamese secretly moved this weaponry into position prior to the assaults over new roads built beneath the thick jungle canopy.

A third major drive unfolded in the border provinces immediately north and northwest of Saigon. The Allies had been aware since early March of concentrated Viet Cong propaganda efforts in the regions between Cambodia and Saigon. The first attacks came in the rubber plantation region of northern Tay Ninh province—600 rounds of recoilless rifle and rocket rounds pounded the fire support base at Lac Long at dawn 2 April. Two days later Communist tanks carried the position. The pressures in Tay Ninh, however, were but diversions for the main blows launched by three Communist divisions on 5 April in Binh Long Province. The main objectives in Binh Long were the towns and airfields in Loc Ninh, An Loc, and Quan Loi, along with positions astride highway 13, the main roadway connecting the region with Saigon. Again, Communist purposes appeared both political and military—first, to establish a regional government, and second, to prepare for possible further operations against more vital objectives such as Saigon itself. As elsewhere, the Binh Long drive featured the employment of substantial numbers of tanks and weaponry more advanced than that used in the past.

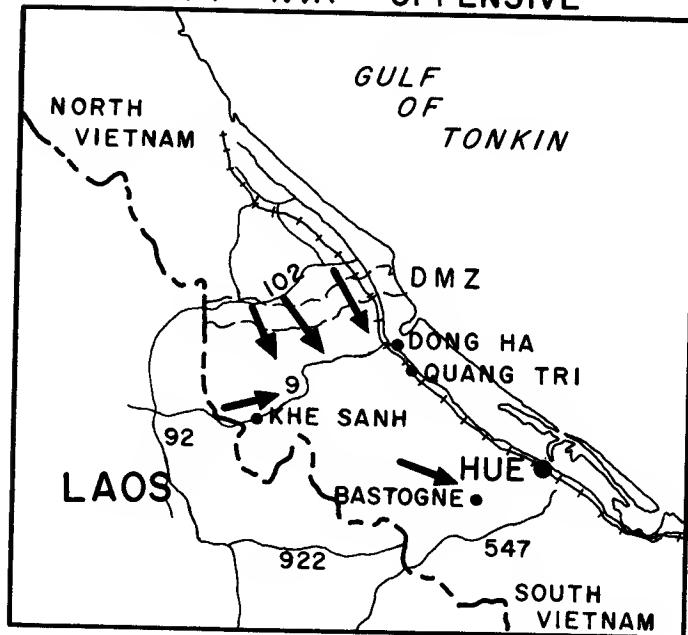
Both sides recognized the pivotal significance of the moment. President Thieu called upon his nation to rally, describing the invasions as “the final battle to decide the survival of the people.” Hanoi, captured documents later indicated, believed that anti-war factions in America would limit any strong reaction to the invasion; the Communists expected that battlefield victories would inflict losses on American forces, defeat the Vietnamization program, and undermine Nixon’s stature at home.

Allied Air Power in South Vietnam

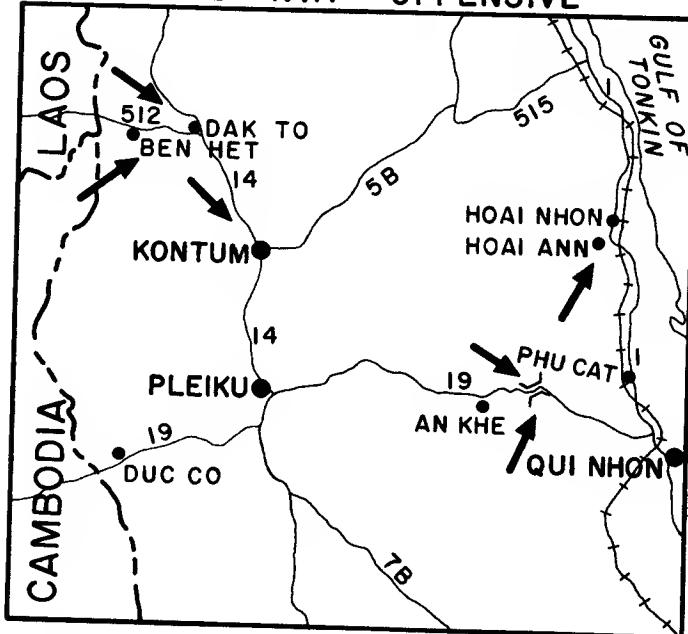
The Allies in past years had repeatedly applied the tactical air weapon against Communist forces and communications with devastating effect. Infantry operations had often been viewed as a means to expose the enemy to the killing action of air and artillery firepower. A foremost example was the 1968 Khe Sanh campaign, when two Communist divisions became fixed by their own intent to besiege the isolated Marine base, thus becoming subjected to decimation by Allied firepower, largely from the air.

The classic instrument of air support and in-country interdiction was the fighter-bomber aircraft, either jet or propeller-driven. At the peak of the war, more than 350 USAF jet fighter bombers were based in South Vietnam. These F-100 and F-4 aircraft could carry an im-

MR 1 NVA OFFENSIVE



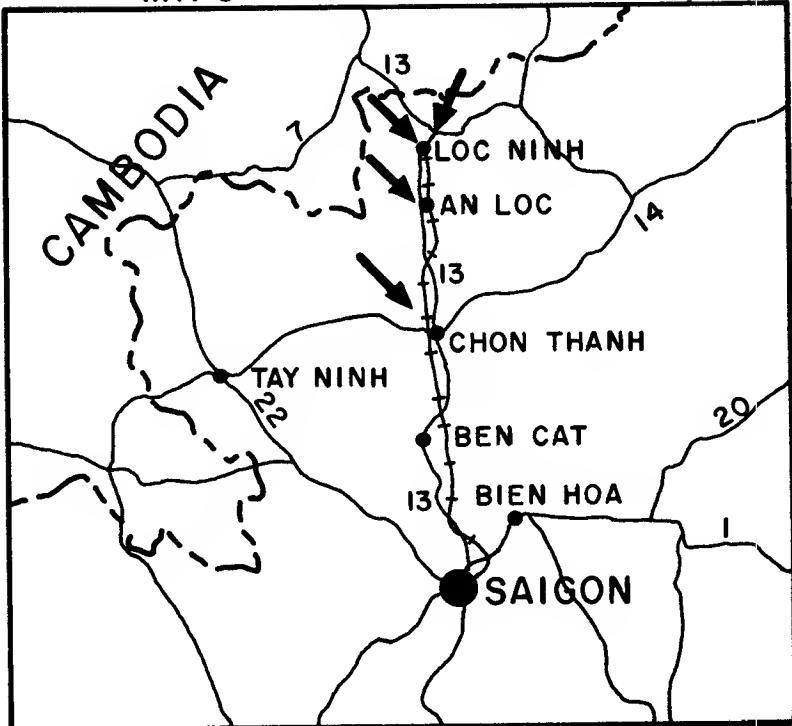
MR 2 NVA OFFENSIVE



AUL/LC

NVA Offensives in MR-1 and MR-2.

MR 3 NVA OFFENSIVE



AUL / LC

NVA Offensive in MR-3.

pressive variety of bombs, guns, and rockets, and deliver devastating effects on single targets—the F-4 could lift as many as 19 750-pound bombs. F-4's directly supporting troops-in-contact achieved great accuracy by using napalm and 500-pound Snakeye high-drag bombs, allowing close-in release. Bombs were typically delivered in a shallow 15-degree dive, releasing about 800 feet above the terrain, with an immediate pullout. When accuracy was less critical or ground fire more intense, pilots made dive bombing attacks from angles of about 45 degrees, releasing (officially) from 7,000 feet.

The high speed of the jet fighter-bombers allowed them to press attacks in the face of heavy ground fire. At 500 knots or more, these "fast-movers" made difficult targets for Communist gunners. The jets were at a disadvantage, however, when operating under low ceilings and in poor visibility, since their speed and design increased the need for maneuvering room. More suitable for attacking targets in marginal weather were the "slow-movers"—propeller craft like the A-1, and lower performance jets like the A-37 and B-57. The Cessna A-37 had been built originally as a USAF trainer, and had been modified for use

in close air support, with stations for six 500-pound bombs. The Douglas A-1 Skyraider could lift twelve 500-pounders, or a total load of 6,500 pounds.

The USAF fighter-bomber posture in Vietnam in March 1972 was a pale reflection of past strength. Three squadrons of F-4's and a single squadron of A-37's remained in Vietnam, a total of 76 fighter and attack aircraft. Present in Thailand and elsewhere in the Pacific were another 300 jets, along with roughly 20 A-1's. This total included a squadron of F-4's, shifted from the Philippines to Thailand in early February in reaction to the reported Communist build-ups. Operating off the coast of Vietnam were two U.S. Navy attack carriers, *Hancock* and *Coral Sea*, each with an air wing of some 90 aircraft—principally F-4's and varied attack craft. Like the USAF units in Thailand, the carrier-based squadrons in recent years were used principally to hit targets in Laos and Cambodia. The South Vietnamese Air Force—laboriously built up during the years of Vietnamization—now possessed a squadron of F-5 jets, plus about 150 slow-mover attack aircraft. Over 200 VNAF tactical fighter crews were formed and rated "combat-ready."

Basic to the application of tactical air was the targeting problem—finding and identifying enemy targets profitable for attack. Allied reconnaissance aircraft each day sought out enemy activities and build-up points. Communist resourcefulness and the forested terrain made effective photo reconnaissance and strikes extremely problematic in Southeast Asia. The answer came in the airborne FAC—the Forward Air Controller—an experienced fighter pilot, aloft in a low-performance observation aircraft. The FAC was expected to reconnoiter target areas, seeking out and marking enemy targets for destruction by the fighter-bombers. Although the FAC was vulnerable in his long searches at low altitude, the Communists quickly learned that he was a dangerous target—a few bursts against a lone FAC was likely in minutes to bring down ordnance-carrying fighters. FAC's coordinated strikes by radio talk with ground troops, air control agencies, and the fighter pilots. USAF FAC's worked equally well with either USAF or U.S. Navy fighters. FAC aircraft included the twin-propeller O-2 and OV-10, both two-seaters and the latter secondarily capable of carrying modest ordnance loads. Present in Vietnam in March 1972 were 144 USAF FAC airplanes, including 37 OV-10's. A VNAF FAC capability had been pressed by the Americans, and in 1972 the VNAF possessed nearly 300 liaison aircraft, most of them very light O-1 craft.

An important supplement to the fighter-bomber force were the airborne gunships—fixed-wing transports modified with 7.62-mm., 20-mm., or 40-mm. weapons. The fixed side-firing guns were aimed by maneuvering the aircraft in precise left-hand turns, at altitudes just above effective small-arms reply. The gunships could remain aloft for extended periods, and were especially valuable in night work, sustaining many an isolated outpost during prolonged attacks in darkness. Gun-

ships could drop flares, illuminating attackers to destruction by the defenders, fighters, or by the gunships themselves. Sensor-equipped gunships had been increasingly used for interdiction attacks in Laos, but the close support role in Vietnam persisted. Some late model AC-130 gunships carried the 105-mm. cannon. The fixed-wing gunships represented an imaginative adaptation to conditions in Vietnam, made successful because of the absence of significant anti-aircraft and missile opposition. A total of 28 USAF AC-119's and AC-130's remained in Vietnam and Thailand in March 1972; VNAF possessed two dozen AC-47 and AC-119 craft.

Another adaptation in Southeast Asia was the employment of long-range strategic bombers for attacks on tactical and interdiction targets. The B-52's of Strategic Air Command had a primary mission of nuclear deterrence, but proved excellent carriers of "iron bombs" as well. A single B-52, after modifications in 1966, could carry up to 84 500 or 750-pound bombs. Striking silently from high altitude, a cell of three B-52's could produce devastating physical and psychological effects on enemy units. Bombing runs were directed using ground radar, yielding high accuracy and allowing last-minute changes in targets. Again and again, the B-52's provided the crunching weight of power to break Communist concentrations—at Dak To and on the DMZ in 1967, at Khe Sanh in 1968, and during the Laotian incursion in later years. The B-52 (or Buf—"Big Ugly Fellow") operated from Andersen Air Force Base, Guam, and U-Tapao base in Thailand, refueling aloft from KC-135 tankers when necessary.

As U.S. involvement in Vietnam gradually diminished between 1969 and 1971, B-52 bombing decreased also. From a peak of about 1800 sorties per month, the rate dropped to about 1000 sorties per month in 1971, all from U-Tapao. During February 1972, SAC returned B-52 bombers and KC-135 tankers to the Pacific from five Stateside bases. Besides offsetting Communist buildups of men and supplies, the deployments warned that the United States would not stand idly by during a major North Vietnamese attack.

The contributions of air transport in Southeast Asia had been enormous. Starting in the early sixties, USAF operated a substantial airlift fleet in Vietnam, performing a variety of troop-movement and resupply roles. Upon the entry of substantial American ground forces in 1965, the four-engine turboprop C-130 became basic to Allied in-country strategy. Eight or ten C-130's, for example, could form an airlift stream, hauling troops and equipment into some relatively primitive forward airstrip, following up with 15-ton resupply loads. Allied ground forces could thus make preventive or reaction strikes into remote areas, executing "search-and-destroy" operations designed to break up enemy main force units and base areas. The ability of the C-130's to lift units into fresh regions further encouraged the offensive strategy, since airlift could be depended on when needed to quickly reinforce thinly

held regions. Further, Allied forces could temporarily disregard threats to road communications, knowing that the C-130's if necessary could perform sustained and massive air resupply. Air transports periodically made emergency deliveries and reinforcements to besieged posts—the sustained resupply of Khe Sanh in 1968, primarily by paradrops under instrument weather conditions, was the most notable of several such examples.

At one time, the C-130 force in Vietnam numbered nearly 100 ships flown around-the-clock. By early 1972, only two dozen C-130's remained at Tan Son Nhut. Most of the smaller transports—C-123's and C-7's—which had once supplemented the C-130's, had left Vietnam. VNAF possessed six transport squadrons, including three equipped with C-123's but lacked the capability for sustained high-volume effort known within the USAF airlift establishment.

Since 1961, when a small force of USAF "air commando" strike aircraft and transports entered Vietnam, over 900 USAF craft had been destroyed in Vietnam. Nearly two-thirds of these had been lost as a result of enemy action. Nearly 800 aircrewmen had been killed, captured, or listed as missing in South Vietnam. Still present in Vietnam and Thailand were 800 USAF craft—primarily the strike, FAC, and transport aircraft, but also including air rescue helicopters, reconnaissance craft, and several dozen KC-135 tankers. To this could be added nearly 1,300 aircraft of VNAF—a significant force numerically but in several respects unprepared for the all-out campaign now beginning.

Table I-1. USAF Order of Battle—SVN and Thailand*
Strike Aircraft, 31 March 1972

Bien Hoa	Da Nang	Korat
23 A-37	60 F-4	35 F-4
NKP	5 AC-119	16 F-105
10 AC-119	Ubon	Udorn
15 A-1	10 B-57	52 F-4
4 F-4	70 F-4	U-Tapao
	13 AC-130	52 B-52

* 31 B-52 at Guam

Chapter II: The U.S. Global Response

Reactions in Washington to the Communist invasion were fast. Early decisions set in motion fresh deployments of American combat aircraft into Southeast Asia. Initial shifts brought into Vietnam and Thailand units based elsewhere in the Pacific. Soon, the expansion drew from Stateside forces, entailing movements nearly halfway around the world. The fast reinforcement of Allied airpower bolstered capabilities for direct support of the South Vietnamese Army and for air interdiction attacks in Laos and North Vietnam. For some aircrewmen, the deployments meant a return to a fight they had only recently left.

Rapid transoceanic deployments were not new for the United States Air Force. For the past two decades, men and units of the Stateside-based Tactical Air Command—supported by long-range transports of the Military Airlift Command—had developed and practiced techniques for worldwide mobility. TAC units had responded to repeated crises in Europe, the Middle East, and the Far East, rapidly augmenting theater air forces in demonstrations of American firmness. Now, in this most direct challenge to long-established American goals in Southeast Asia, the flexibility of American air power came under test.

Early Reactions

The third day of the offensive in Vietnam, 1 April, was to have been the second day of a long Easter weekend at Kunsan Air Base, Korea. Soon after dawn, a telephone call wakened Colonel Tyler G. Goodman, Deputy Commander for Operations of the 3rd Tactical Fighter Wing, summoning him to the wing command post. Goodman went directly to the command post, and talked with 5th Air Force headquarters in Japan, using the "walk-talk" secure teletype system. Fifty minutes later, all members of the 35th tactical fighter squadron were called to their squadron area, using "silent recall" procedures designed to minimize general knowledge of the action. Crewmen responded with some suspicion, noting the coincidence of April Fools' Day.

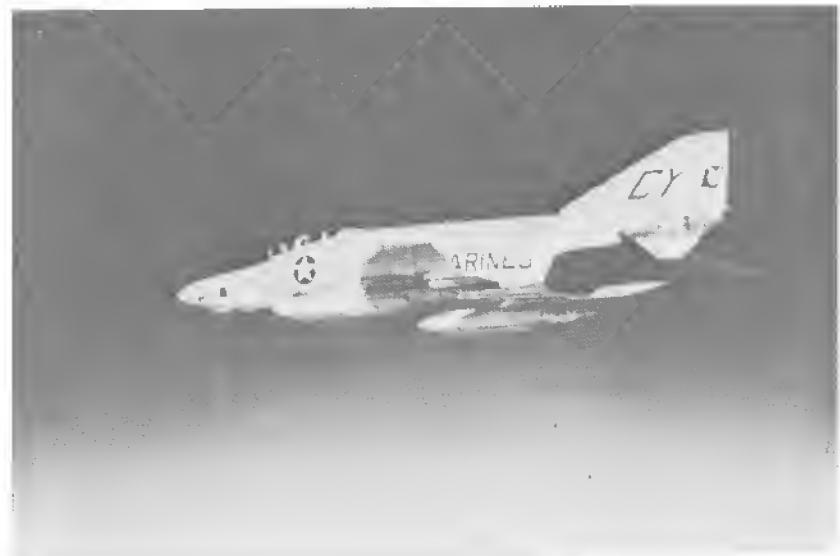
At mid-morning, Goodman briefed the assembled members of the 35th, telling them that the unit was to move to Clark Air Base in the

Philippines that afternoon. Fourteen F-4D aircraft, in flights of six and eight, one hour apart, were to deploy. The flight would be nonstop, with a single in-flight refueling from airborne tankers over Okinawa. A painful decision was taken, that those squadron members finishing their overseas tours and scheduled to return shortly to their families, would not be excused from the deployment. Pilots and navigators returned to their quarters to pack belongings. Personnel processing began at 1100 hours, including checks of identification cards, individual records updates, and currency conversion.

Meanwhile, all personnel at Kunsan were recalled to duty locations, to facilitate preparation of aircraft and equipment for the departures. Personal equipment specialists worked at preparing aircrew equipment, giving special attention to the emergency survival vests. Flight briefings for the aircrews began at 1200. Station and engine-start times were twice postponed to give the maintenance force extra time. At 1530, the six aircraft of Jambo 11 flight made successful takeoffs. Eight ships followed an hour later with Jambo 21. Thirteen ships landed at Clark after flights of 3½ hours; one ship returned to Kunsan with fuel flow troubles. Spare crews flew to Clark that evening as passengers aboard C-130's. Four more ships and crews flew to Clark the next morning, refueling on the ground at Kadena Air Base, Okinawa.

After a night's rest, the 35th crews at Clark spent Easter Sunday morning briefing and planning for further deployments into Southeast Asia. During the afternoon, all attended refresher instruction in jungle survival training. Jambo 61 departed at mid-morning on the 2nd, for refueling off the Vietnam coast. By nightfall, nine aircraft and crews were present for duty with the 366th Tactical Fighter Wing "Gun-fighters" at DaNang; nine other ships and crews were on the ground with 8th Tactical Fighter Wing at Ubon, Thailand. Two-day theater indoctrinations given by the host units followed, including briefings on local flying procedures, munitions, and current intelligence. Crewmen from the 35th began flying missions from Ubon on 5 April, from DaNang the next day. Soon afterwards, the Ubon element shifted to DaNang, bringing the F-4's just 50 miles or ten minutes from the Quang Tri battles.

Meanwhile, the familiar words, "The Marines have landed," again sounded at DaNang. On 6 April, two U.S. Marine F-4 squadrons began deploying to Vietnam from Iwakuni Station, Japan, to the war zone. By evening of the 7th, 22 aircraft and crews were on-station at DaNang. By the 11th, the Marines had begun flying combat missions with the host USAF 366th Tactical Fighter Wing. Two days later, a third Marine F-4 squadron arrived at DaNang from Kaneohe Station, Hawaii. Simultaneously in early April, a detachment of Marine EA-6A craft deployed to Cubi Point, Philippines, establishing a forward operating point for electronic countermeasures missions in Southeast Asia; soon afterwards, two-seat TA-4F's moved to DaNang to perform air-



U.S. Marine F-4.

borne spotting of naval gunfire for vessels of the Seventh Fleet. Finally, in mid-May, the Marines moved two squadrons of A-4 Sky Hawk attack aircraft from Iwakuni to Bien Hoa Air Base, where they joined daily in the defense of An Loc. One of the A-4 units was Attack Squadron 311—the “Tom Cats,” the last Marine fixed-wing squadron to have left Vietnam, in May 1971.

The U.S. Navy joined in the early reaction. Joining the two carriers off Vietnam were *Kitty Hawk* and *Constellation*, arriving on 3 and 8 April respectively from the Philippines and Japan. Simultaneously, *Midway* began deploying from the Eastern Pacific, arriving to commence combat missions on the 30th. A sixth carrier, *Saratoga*, received orders on 8 April to deploy from the Atlantic. Thus, six attack carriers, each with an air wing of 90-odd craft, came into action off Vietnam through late spring. At least four carriers stayed in position for air operations, and an average of 70 percent of assigned aircraft were available for combat each day. The two ships off-station could replenish supplies, perform training, or put in at Subic Bay, Philippines, for refit and crew liberty.

Deployments of Stateside Units

Further reinforcements drew upon units of Tactical Air Command in the United States. On 5 April 1972, General Creighton W. Abrams, Commander of U.S. Military Assistance Command, Vietnam (COMUSMACV), urgently requested additional deployments. The JCS approved



The Attack Aircraft Carrier USS Constellation underway.

his request the same day, and TAC initiated a series of major deployments known as Constant Guard I, II, III, and IV.

Constant Guard I entailed movement of a squadron of F-105G Thunderchiefs from McConnell Air Force Base, Kansas; two F-4 Phantom squadrons from 4th Tactical Fighter Wing at Seymour Johnson AFB, North Carolina; and several EB-66's from Shaw AFB, South Carolina. First to depart (on 7 April) were the F-105G's from 561st Tactical Fighter Squadron—the so-called Wild Weasel birds, which had been designed to counter surface-to-air missile threats. The last F-105 arrived at Korat, Thailand, on the 12th; combat missions began the same date. Four EB-66's closed at Korat on the 16th, joining four others ordered deployed from Shaw in late March. The EB-66's were configured as "Standoff Jammers,"¹ to provide electronic countermeasures support for strike aircraft operating in heavily defended areas.

The special capabilities of the Wild Weasels and EB-66's were associated with strikes against North Vietnam, where missile defenses were the heaviest. More clearly focused on the situation in South Vietnam was the F-4 deployment from Seymour Johnson. On 5 April, Colonel James R. Hildreth, commander of 4th Tactical Fighter Wing, received a secure voice call from Headquarters, TAC. Hildreth replied to questions, giving assurances that the wing was capable of launching two 18-ship F-4 squadrons for duty in Southeast Asia, within 72 hours. Warning and implementing orders came in fast succession during the early hours of the 6th. Both squadrons—the 334th and 336th Tactical Fighter Squadrons—had been fully enmeshed in a TAC Operational Readiness Inspection, one of those periodic tests set up by higher headquarters to measure the ability of operational units to meet strenuous standards. The Seymour Johnson units abruptly put aside this peace-time test, to face the real pressures of a wartime mission.

By noon of the 6th, processing of over 1,000 personnel had begun, and a team from Military Airlift Command (MAC) had arrived to plan for and control the expected flow of supporting transports. C-141 jet transports began arriving late that night, taking aboard support personnel and equipment for airlift to Thailand. Over the next 72 hours, 38 C-141's landed and departed, lifting out 854 troops and over 400 tons of cargo. Meanwhile, four C-130's of TAC hauled out teams and equipment needed to service the F-4's at the scheduled en route stops.

After 48 hours of fast but orderly preparation, 18 F-4E's and crews left Seymour Johnson on the 8th, departing in cells of six aircraft, thirty minutes apart. All ships reached Hickam non-stop after eleven hours of flying and multiple in-flight refuelings. The discomfort of the long day in the cramped cockpit, wearing parachute, survival gear, and

¹ "Standoff Jammers" orbited out of range of enemy AAA and SAM sites as they provided electronic countermeasures support for the strike flight.



An EB-66 taking off in Southeast Asia.





An F-4E from the 4th TAC Fighter Wing carrying 20mm cannon in the nose and two Laser Guided Bombs (LGB).

a tight helmet, made at least one pilot "question my choice of profession." All 18 ships flew to Guam the second day, and all landed at Ubon, Thailand, on 11 April, having lost a calendar day in crossing the International Date Line. Twenty-four hours behind, 18 F-4's and crews of the 336th made good the same itinerary. Crews from the 334th greeted the 336th troops on the Ubon flight-line upon arrival on the 12th. Seymour Johnson crews flew their first combat sorties on the 14th. Colonel John E. Ralph, newly designated commander of the 4th Wing, joined the two squadrons in Thailand in May.

General William W. Momyer, former commander of the USAF 7th Air Force in Vietnam, and now the energetic chief of Tactical Air Command, forwarded his congratulations. To Momyer, the trans-Pacific move represented "the highest traditions of TAC over the years." Momyer messaged the units now in Thailand on 12 April:

"TAC is proud of you as our first-line fighting team. I know the enemy will soon feel the full effect of your striking power. Good hunting and straight shooting. We are all behind you in this all-out struggle for the future of Vietnam."

A further commentary on the arrival of 4th came in the June issue of the Phantom Flyer, published at Ubon. In a section called "War Is



General William Momyer (left), Commander of the Tactical Air Command is shown conferring with Chief of Staff General John D. Ryan (right).

Hell," an anonymous author from the host 8th Tactical Fighter Wing wrote:

"Happiness is . . . having the Stateside warriors arrive telling you how good they are . . . then letting them fly, and finding out they are better than they say they are."

Under Constant Guard II, two more TAC F-4 Squadrons moved to Thailand. Beginning on 1 May, the 308th Tactical Fighter Squadron at Homestead AFB, Florida and the 58th Tactical Fighter Squadron from Eglin AFB, Florida made the long journey from their home bases to Udorn. The shift brought 36 F-4E aircraft—TAC's best fighter for air-to-air combat—into the theater.²

Constant Guard III became the largest single move in the history of TAC. The deployment from Holloman AFB, New Mexico, of the 49th Tactical Fighter Wing, its four squadrons of F-4D's, and most members of the 49th Combat Support Group, duplicated on a grander scale the movement of the Seymour Johnson squadrons in April. The wing received its tasking message in the early morning hours of 4 May. All personnel were promptly alerted, and the routine of briefings, planning, and packing began. Most men did some hasty shopping, knowing that the new home at Takhli, Thailand, was officially described as a "bare base." Takhli had once been the launch base for some of the heaviest strikes against North Vietnam, but had been closed for USAF operations 13 months before and placed in caretaker status under the Thai Air Force. Major rehabilitation was clearly required, but could be completed only well after deployment of the 49th.

The first aircraft to depart were the F-4D's of the 417th Squadron. With all preparations completed, the squadron held a special gathering at the Officers' Club the final night, 6 May, reducing the tensions of the moment. Members ceremonially burned the TAC-blue "dickies" worn by all members of the 49th at the insistence of the wing commander, Brigadier General Jack Bellamy. Bellamy, scheduled to lead the first cell the next morning, was the first to burn his.

Some "old hands" in the 49th noted one change from past methods for the trans-Pacific flight. The idea was relatively new, of pairing a KC-135 tanker with several fighters and essentially travelling the entire

² There is a considerable difference between members of the F-4 family of aircraft. In 1972, the Air Force had two fighter versions in SEA: the F-4D and the F-4E. Most of the units already in SEA had the F-4D, an earlier model of the Phantom which was employed mainly as a platform to deliver bombs in a high-threat environment. The F-4E contained an integral cannon and other improvements such as an up-dated radar system. The F-4E was thus better suited for achieving and maintaining air superiority than the F-4D, and equalled it in bombing capability. Because U.S. planners did not know the exact nature of the total North Vietnamese threat they elected to send F-4E's to the initial deployments. Events subsequently proved that air superiority was not contested by the North Vietnamese in the immediate area of the invasion, so F-4E's were used mostly as fighter bombers in that locale.

distance together. The older system required fighters to meet tankers at intervals of roughly 800 miles over the ocean.. The buddy-system became possible because of the speed and altitude performance of the jet KC-135's, and ended the anxieties known to all fighter pilots lest tankers fail to appear on schedule ahead.

The landings at Hickam permitted revivals of old friendships. Members of Fighter Directorate, Pacific Air Forces, met each arriving crew with liquid refreshment, receiving comments in return on the "rigors of duty" in Hawaii. Actually, few fighter-pilot "desk-jockeys"—even those stationed in the Islands—would turn down a chance to return to action in a cockpit with the 49th.

Seventy-one of the wing's 72 F-4's arrived at Takhli on schedule. MAC and contract jet transports hauled in men and equipment from Holloman—over 1,350 tons were lifted out from Holloman in the first few days. One member of the 8th Tactical Fighter Squadron—the Blacksheep squadron—gave an account of the first weeks at Takhli:

The crews were greeted at the aircraft in traditional fashion with cold beer and at the same time received a rather sad picture of living conditions. The Blacksheep moved right in, building shelves, tables, benches, and a duty desk at Operations out of shipping crates as well as a bar for the lounge in the living area. We all built our own shelves so we could unpack. Foot lockers came two weeks later. When we first arrived, using temporary generators, we had electricity in essential buildings. Takhli had been well stripped after its closure in 1971, including nearly all of the wiring. There was no hot water or air conditioning on the base. All water required testing for potability before we could drink it. After two weeks of drinking bottled water, medical services reported the tap water as potable and living was more comfortable. Air conditioning soon followed full restoration of electrical power.

Combat operations began promptly. Twenty-four hours after arrival, the 417th Squadron flew 27 missions supporting South Vietnamese troops in the An Loc area. Flight leaders attained clearance to lead strikes after two rides with instructor pilots based at Korat. For most crewmen, combat readiness was principally a matter of paperwork—of 25 aircraft commanders deployed with 9th Squadron, for example, all but one had served at least one previous tour in Southeast Asia; four men had two previous tours. Mission activity soon expanded to include attacks near Kontum and in other regions of the northern half of South Vietnam.

Constant Guard IV began on 13 May with the deployment of two C-130E squadrons to join the 374th Tactical Airlift Wing at Ching Chuan Kang Air Base, Taiwan. Early in the offensive, the 374th Wing had expanded its C-130 operating element in Saigon, and its four assigned squadrons had since flown to the limit of surge capabilities. The Constant Guard force included 32 C-130's, 64 crews, and supporting maintenance contingents, principally from the 36th Tactical Airlift Squadron at Langley AFB, Virginia, and the 61st Squadron at Little

Rock. One of the two squadrons possessed aircraft specially equipped with the All Weather Air Delivery System (AWADS)—a radar and computer combination designed for paratroop work in instrument weather. The Air Force's weakness in all-weather drops had been chronic since World War II, and the new AWADS had been funded in part as a result of the prolonged airdrop resupply of Khe Sanh in 1968.

Table II-1. Summary of USAF Tactical Air Deployments

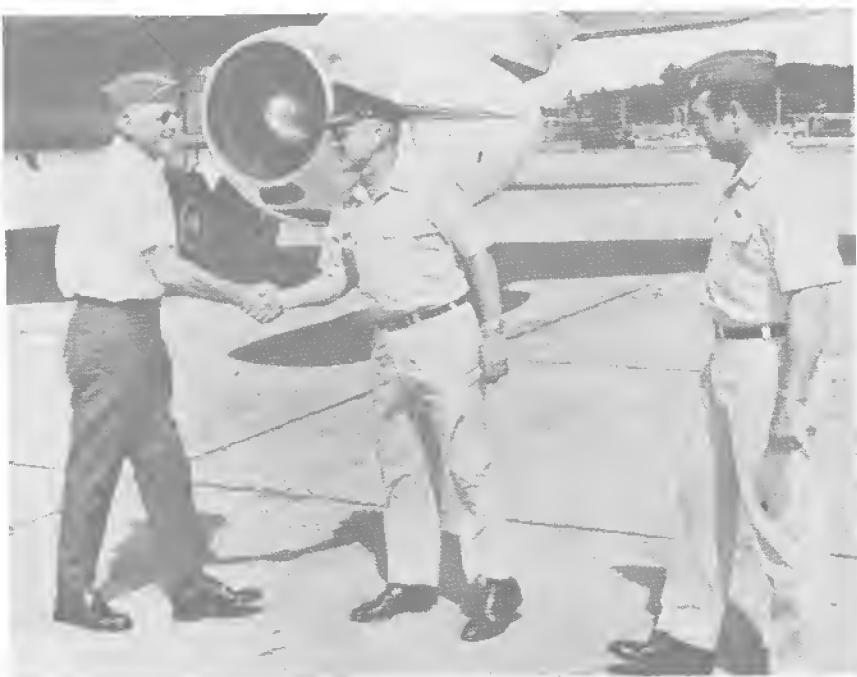
Approximate date	Unit	Location	A/C number and type	Deployment base
8 Feb	523 TFS	Clark AB, PI	18 F-4D	Udorn
3 Apr	35 TFS	Kunsan, Korea (Constant Guard I)	18 F-4D	Da Nang and Ubon
11 Apr	521 TFS	McConnell AFB, Kansas	12 F-105G	Korat
11 Apr	334 TFS	Seymour Johnson AFB, NC	18 F-4E	Ubon
11 Apr	336 TFS	Seymour Johnson AFB, NC	18 F-4E	Udorn
11 Apr	39 TEWS	Shaw AFB, SC (Constant Guard II)	8 EB-66	Korat
1 May	308 TFS	Homestead AFB, FL	18 F-4E	Udorn
1 May	58 TFS	Eglin AFB, FL (Constant Guard III)	18 F-4E	Udorn
13 May	49 TFW	Holloman AFB, NM (Constant Guard IV)	72 F-4D	Takhli
13 May	36 TAS	Langley AFB, VA	18 C-130E	CCK
13 May	61 TAS	Little Rock AFB, AR	18 C-130E	CCK

An eloquent comment on the fast augmentations of his command by the TAC units came from General Lucius D. Clay, Jr., Commander of Pacific Air Forces:

I think probably the most significant change in airpower over the last 25 years . . . is this *complete flexibility and our capacity to respond at a moment's notice*. If anybody had told me 25 years ago that you could take a fighter wing out of Holloman Air Force Base, New Mexico and *have it overseas in less than a week and have it flying combat*, I'd have said "You're nuts!" I think this exercise has really proved that the Air Force has grown with the times. It shows our flexibility to go anywhere in the world and do the job assigned. It's simply a fantastic operation. When you see a young fighter pilot who climbs into an F-4 at Seymour-Johnson AFB in North Carolina, hits a tanker about 6 to 10 times, lands here at Hickman, hops out, and is ready to press on the next morning full of enthusiasm and pride, boy, it really makes you want to take your hat off and say—"We've really got an Air Force when you've got men like that making it go."

Augmentations From the Strategic Air Command

Expansion of the Pacific-based B-52 and tanker forces was handled outside the Constant Guard operations. Augmentations of B-52's from



(L to R) General Lucius D. Clay, Jr., Commander of Pacific Air Force; Major General DeWitt R. Searless, Commander of 7/13 AF; Col Scott G. Smith, Commander of 432 TRW, Udorn Thailand.

SAC bases in the United States came in several increments. During April, three groups of B-52D and B-52G aircraft deployed to Guam, raising B-52 strength in the Pacific to 138—53 at U-Tapao and 85 at Andersen. Sortie totals rose in proportion to the force increases, totaling 1,800 for the month of April, all but 200 against targets in South Vietnam. In some cases, B-52's were flying bombing missions over Vietnam less than 72 hours after receiving deployment alert at their State-side bases.

Table II-2. Summary of B-52 Deployment

Date	Number of Aircraft	Deployment base
5 Feb 72 -----	8 B-52D	U-Tapao RTAFB, Thailand
7 Feb 72 -----	29 B-52D	Andersen AFB, Guam
4 Apr 72 -----	20 B-52D	Andersen AFB, Guam
8 Apr 72 -----	6 B-52D	Andersen AFB, Guam
11 Apr 72 -----	28 B-52G	Andersen AFB, Guam
6 May 72 -----	4 B-52G	Andersen AFB, Guam
21 May 72 -----	7 B-52G	Andersen AFB, Guam
23 May 72 -----	59 B-52G	Andersen AFB, Guam

NOTE: These B-52's came from 15 bomber bases throughout the United States. These deployments were in support of Bullet Shot I, II, III, IV, and V.



Andersen AFB, Guam, was a very crowded air base in 1972.



Many personnel at Andersen lived in hastily erected tents.

The SAC fleet of KC-135 tankers faced a growing workload. Besides assisting in the movements of tactical aircraft across the Pacific, the KC's were increasingly needed for refueling strike aircraft operating in Southeast Asia. The Pacific B-52 force, for example had been consolidated at U-Tapao in 1970—close enough to hit all targets without in-flight refueling. The B-52's now flying from Guam required enroute fuel, and a force of tankers took position at Kadena for this purpose. With the Constant Guard augmentations, air refueling requirements rose from a stabilized commitment of 36 per day, to a peak of 130 daily. SAC accordingly positioned 46 tankers at U-Tapao, and (because of limited parking and other facilities at U-Tapao) several other bases. Eventually, a total force of 168 tankers and 285 crews operated from the six bases listed below.

Table II-3. Sea Tanker Force 1972

Base	Aircraft totals	crews
U-Tapao -----	46	88
Clark -----	28	37
Don Muang -----	13	23
Takhli -----	20	36
Korat -----	7	12
Kadena -----	54	89
<hr/> Total -----	<hr/> 168	<hr/> 285

The fast buildup of U.S. air power in Southeast Asia and the western Pacific illustrated well the meaning of "global response" and "strategic

mobility." By the end of May, USAF forces in Southeast Asia included nearly 400 F-4's and F-105's—nearly double the strength in tactical jet fighters than at the start of the offensive. B-52 strength in the Pacific was 171—up more than threefold. The number of C-130 airlift squadrons present in the Western Pacific had been raised from four to six, and the daily C-130 working force in Vietnam increased to 38 planes. The rapidity and efficiency of the Constant Guard moves by TAC, the SAC Bullet Shot shifts, and the Navy and Marine air deployments, appeared to validate the mobility and readiness inherent in the air weapon. The real meaning of the buildup, however, still depended on the ability of the Allied air arm to blunt the momentum of the Communist invasion.

Table II-4. USAF Order of Battle—SVN and Thailand*
Strike Aircraft, 30 May 72

Bien Hoa	Korat	Udorn
20 A-37	34 F-4	86 F-4
2 A-1	31 F-105	U-Tapao
5 AC-119	NKP	54 B-52
Da Nang	4 AC-119	Takhii
60 F-4	16 A-1	72 F-4
5 AC-119	4 F-4	
2 A-1	Ubon	
	92 F-4	
	14 AC-130	

* 117 B-52 at Guam

Chapter III: The Defense of Military Region I

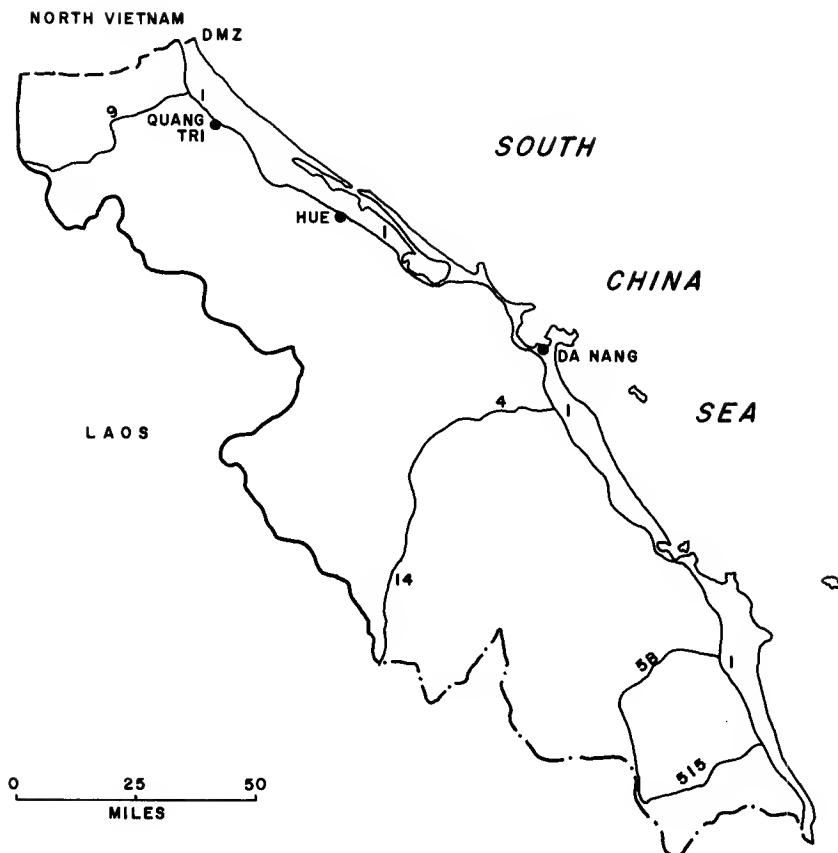
An American Air Force Captain guided his OV-10 Bronco through the layers of overcast, concentrating on his flight instruments but alert for those glimpses of terrain that would permit transition to visual reference. The pilot's mission was to locate survivors of an EB-66 electronic warfare ship, downed a few hours earlier near the Demilitarized Zone (DMZ) dividing the two Vietnams. Since the start of the Communist attacks on the fire support bases above Quang Tri three days earlier, Allied airmen had strenuously tried to work the region to combat the yet unclear enemy thrust. Constant low ceilings and poor visibility, however, had masked the full strength and movements of the North Vietnamese invaders.

Almost directly over the Ben Hai River, at the center of the DMZ, the OV-10 broke into the clear. Staying under the low clouds, the pilot "jinked" hurriedly back and forth to avoid small-arms fire from below. The young officer radioed excitedly to another OV-10 still overhead: "My God, you should see the people down here—all over the place—People, Tanks, Trucks, the whole nine yards—and everybody is shooting." Captain Richard M. Atchison, listening in the second OV-10 overhead, remembered, "that's when we knew that big things were coming."

Several factors accounted for the early Communist success against the fire support bases above Quang Tri. Although Allied intelligence had detected Communist preparations, the precise timing and nature of the blows came as a partial surprise. The lingering northeast monsoon brought ceilings along the DMZ below 500 feet, making effective close air support almost impossible except for high-altitude electronic bombing by B-52's and tactical aircraft. Communist forces were both physically and psychologically well-prepared for the grand stroke—captured enemy soldiers told of indoctrinations, teaching that air strikes and B-52's were harmless, and that the South Vietnamese would run when they saw tanks and felt the massed artillery fire.

The South Vietnamese had been poorly prepared in one important respect—their command and control system for applying large amounts of airpower. The policy of Vietnamization had shifted primary respon-

MILITARY REGION I



AUL/LC

sibility for the Tactical Air Control System¹ in the region to the VNAF, with only limited support and advice from American advisors. The Air Liaison Officer advisor to the South Vietnamese 3rd Infantry Division, summed up the outcome during the initial operations:

I was immediately drawn into a situation where I became the ALO and air operations officer to 'everybody in the world.' Because of the seriousness of the situation and the need for action, I processed air requests from all units in coordination with G-3, G-3 Air, and other U.S. advisors. . . . It was at this point that the Tactical Air

¹ System for directing and managing tactical air operations to assure responsive and effective air support.



33

OV-10s shown carrying center line fuel tanks and (on the left) two SUU-11A/A mini-guns and two LAU-32A/A rocket launchers.

Control System became an American operation. . . . The number of requests submitted by the 3rd ARVN, during the first days was astronomical. . . . One of the most difficult problems at times was getting clearance initials, political and military,² to strike immediate targets.

Nor were the Americans well prepared to undertake the vastly expanded tactical air control responsibility. The drastically scaled-down American system present in 1972 was no longer accustomed to handling large numbers of sorties. Adjustment was fast—resources were shifted from Laos to meet the invasion. There were rapid changes in priorities and missions. The USAF Tactical Air Control System reeled a bit under the sudden pressure—but it held, regrouped, and went on to punish the invaders.

AAA and SAM's³

In preparing for the invasion, the North Vietnamese vastly expanded their anti-aircraft capabilities in the region. Allied pilots reported that the intensity of fire near the DMZ was equal to that encountered during earlier raids in the Hanoi area. Besides the 23-mm., 37-mm., and 57-mm. weapons used in the past, the Communists introduced 85-mm. and 100-mm. guns into and south of the DMZ. In the weeks before the invasion, Allied pilots realized that the Communists were also bringing in significant numbers of surface-to-air missiles. Lt Colonel Gabriel A. Kardong, commander of the USAF FAC unit at DaNang, elaborated on the missile build-up:

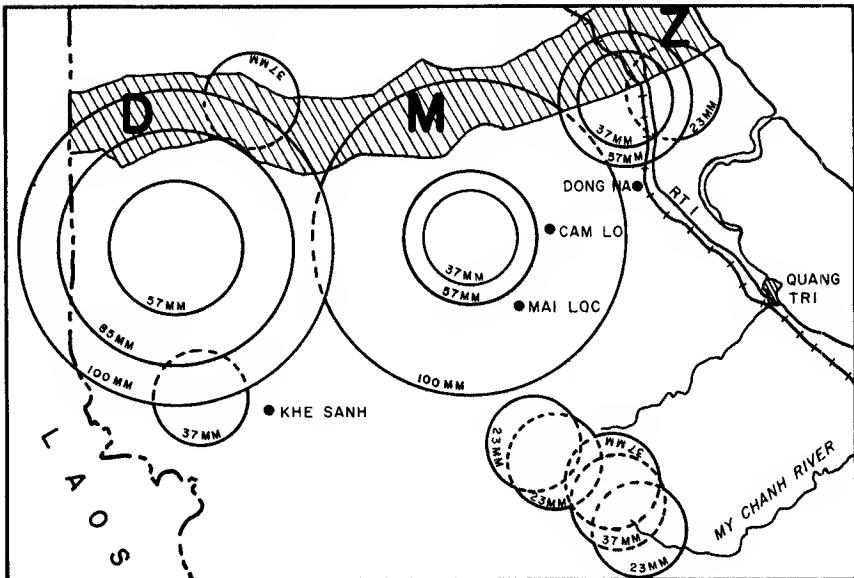
The SA-2 missile was considered a threat only in North Vietnam and parts of Laos until the latter part of January 72. Preparatory to the April invasion the DMZ area was jammed with hundreds of AAA pieces, artillery, and SAM-2 missiles. On the 17th of February I narrowly evaded a SAM-2 while flying at 1,200 feet in the DMZ. That day, 81 SA-2's were fired in the DMZ area and downed three F-4 aircraft.

The North Vietnamese fired the SA-2 missiles in singles, and sometimes in volleys of two or three. A favorite tactic against low flyers was to fire a high volley from one site just to attract attention; then while the pilot was busy dodging these, another site would hit him from below. Along with the AAA, the SAM challenge was enormous, both mentally and physically, especially for the low-and-slow flying forward air controllers. According to one OV-10 pilot, a mission in the DMZ area meant "four hours of dodging SAM's and AAA continuously, with not more than five minutes that you weren't swinging to avoid some-

² Command and control weaknesses may have been part of the RVNAF's inability to use its superior airpower to advantage in the 1975 invasion.

³ Anti-aircraft artillery and surface-to-air missiles.

MR I NVA ANTI AIRCRAFT HIGH THREAT AREAS



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thing." Here is one account of a SAM encounter by an OV-10 crew-member:

They started to hammer us hard. We got a SAM warning, I looked up and saw three of them high, and just about the time Rocky started to break, I saw two more coming low. The two low ones passed behind us, the three high started to come down on us. Suddenly I saw a big puff, beepers are going off and just as we were coming up to the beach, I heard a call coming from Covey 282. They were hit about two miles off our left wing—he just flat went down. We were doing our own act—Rocky broke to the right, but a SAM was coming from the tail; whether it had gone up and made a turn, I'll never know, but Rocky took the aircraft and put it straight down and the SAM went off in full view of the canopy at about 300 feet. Shook us up badly, we had to go over the beach and take a water bottle break.

The daily battles between the airmen and the Communist gun and missile crews were of high drama. The Communist crews knew the importance of stopping the Allied aircraft and gained several kills in the first days. The airmen knew the necessity of defeating the guns and missiles, in order to bring their weight to bear on the North Vietnamese advance on the ground. Fortifying the resolution of every Allied pilot was the knowledge that, if shot down, his comrades would do everything humanly possible to bring him out. One rescue operation—the saga of Bat-21—became a symbol of the whole struggle to apply air-power to stop the Communist invasion.

On the afternoon of 2 April, two EB-66's (Bat-21 and 22) out of



Lt Col Gabriel A. Kardong.

Thailand were flying eastward just south of the DMZ. The two electronic warfare craft were escorting a cell of B-52's, bombing near the DMZ. Bat-21 carried a six-man crew which included a pilot, navigator, and four electronic warfare officers (EWO). Three SAM's were launched at Bat-21. One of the EWO's called a SAM missile warning on the right side of the aircraft. That meant that the SAM had been fired from inside South Vietnam. The missile hit the plane directly in the ECM compartment area, and the bird went down. One "beeper" came on the air,⁴ that from the navigator's survival radio. Apparently he was the only one who bailed out.

Captain Jimmie D. Kempton, piloting an OV-10 out of DaNang AB, talked to Bat-21's navigator, Lt Colonel Iceil E. Hambleton, as he descended in his chute. The area was completely blanketed by clouds so getting an exact position on the survivor was difficult. Capt Kemp-ton descended under the clouds and located Hambleton visually, his chute still visible from the air.

Coincidentally, an airborne search and rescue task force⁵ was operating nearby. It had been launched from DaNang to evacuate some

⁴When an aviator bails out of his aircraft, his survival radio is activated. It starts sending out an audible "beeping" signal on emergency frequencies.

⁵A typical air rescue task force included one or two HH-53 "Super Jolly Green" rescue helicopters and 4-8 A-1E propeller driven attack aircraft.



Lt Col Iceal E. Hambleton, navigator of Bat 21, and the object of an extensive search and rescue effort.

U.S. Army advisors from Quang Tri but that mission had been cancelled. Two A-1's from the rescue force, Sandy 07 and 08, heard the emergency calls and headed north toward Hambleton's position. Amid intense ground fire, the Skyraider pilots spent the next couple of hours talking with Hambleton on the radio and trying to keep the North Vietnamese from capturing him. The A-1's were flying under low clouds hanging over the river valley, which made the job ever tougher.

Working with Hambleton was an experience that none of the Sandy pilots would ever forget. He called off positions of fire, watched the ordnance impact, and gave the crews corrections based on his observations. Hambleton could see and hear troops within 100 meters of his position. During these crucial hours, "he saved his own life by maintaining his cool."



A rescue force of two "Jolly Green Giant" helicopters and two (of the 4-8) A-1s.

Meanwhile, Kempton had flown southward, making calls to find someone to go in and pick up Hambleton. Soon he was returning with four U.S Army helicopters in tow—two UH-1B "Cobra" gunships and two UH-1H passenger-carrying "slicks." Approaching Hambleton's position, two of the four choppers were shot down. One UH-1H was completely destroyed with no survivors. The Cobra, Blue Ghost 28, was able to reach the beach, and its two crewmen were soon picked up. But darkness was approaching fast. There would be no pickup for Colonel Hambleton that night.

At 2100 hours, Nail 59 relieved the DaNang FAC's. Nail 59 was flying a new version of the OV-10 aircraft with the Pave Nail system on board.⁶ The Pave Nail precision Loran equipment had proved itself on rescue operations by providing accurate survivor position information at night and in bad weather. Nail 59 made contact with Hambleton on the ground. By using a series of radio bearings off the survival radio and their Loran equipment, Nail established his exact position in a few minutes. Hambleton was about a thousand meters north of the town of Cam Lo on the north bank of the Mien Giang River.

Mixing Rescue and War

Throughout the night, FAC's from DaNang and Nakhon Phanom (NKP), Thailand, maintained continuous patrol over Hambleton.⁷ Shortly before dawn on April 3, two Pave Nail OV-10's from NKP—one crewed by Captain Rocky O. Smith and Captain Richard M. Atchison—underwent briefings and pre-flight preparations, leaving NKP so as to arrive over Bat-21 at first light.

Hambleton had meanwhile taken refuge in a big clump of bushes surrounded by a very large field, and reported that there were North Vietnamese troops still all around. The first task for the overhead FAC's, then, was to put down a ring of area-denial ordnance, surrounding Hambleton's position. Because of the foul weather, visual airstrikes were not possible. Smith and Atchinson relayed the Loran coordinates of Hambleton's position back to the Task Force Alpha targeting center at NKP for analysis. There, personnel checked recent photography of the area, corrected the target coordinates for mapping errors, and put together the information necessary for Loran airstrikes.⁸ The strike data was then passed back to the FAC's on the scene. Within hours,

⁶ Pave Nail OV-10's were equipped with precision Loran c/o navigation equipment, a light intensification viewer, a laser designator, and a computer system. Two crewmen were used—pilot and weapon systems operator.

⁷ FAC's from DaNang AB, South Vietnam had call signs Covey and Bilk while the FAC's from NKP in Thailand used the call sign Nail.

⁸ This procedure had been developed in a joint FAC-Task Force Alpha program and used extensively in previous rescue operations in 1971-1972.



Captain Richard M. Atchison in front of his OV-10 FAC aircraft.

Smith and Atchison were clearing in flights of fighters. The fighters used their Loran bombing equipment to place the ordnance down around Hambleton's position.

Smith and Atchison landed at DaNang instead of their home station in Thailand. They met with the covey FAC's and Army advisors there and explained their capability, exchanged target information, and established a zone of operation north of the Cam Lo River. In this safety zone around the survivor, the U.S. Air Force would control all air strikes and artillery fire.

On the second day of the operation, an SA-2 claimed Nail 38, with Bill Henderson and Mark Clark on board. The two had just relieved Smith and Atchison, and were turning in east of Cam Lo when "Red Crown"⁹ called a SAM launch. The Communists had used a favorite tactic, firing when Henderson and Clark were directly over a cloud layer and unable to see the SAM in time to out-maneuver it. Hearing the Red Crown warning, Henderson started an evasive turn, but the SAM came through the clouds and caught the OV-10 right in the tail. Atchison gave this account:

Just as they started to turn, they caught it right in the tail booms. Blew that OV-10 to pieces. Just a tumbling ball of fire, sailing down to the river. Two chutes came out of the fireball—beautiful. Mark landed south of the river, south and east of Hambleton.

⁹ Red Crown: SAM warning for the OV-10's was provided by a U.S. Navy EC-131 which had Radar Homing and Warning equipment on board. The warning was passed to the FAC's through a control agency called Red Crown.

Henderson landed north in a big field—within 500 meters of Bat-21. Henderson told me after his release that ten or fifteen people came out of the woods and chased him. He found a clump of bamboo and jumped in—they couldn't find him. That night a group came out and started cutting down the bamboo. They used it for camouflage. They worked right over Bill's shelter. He doubled up with machetes going over his head. They cut all of his bamboo down—he was then taken north.

Mark found a barbed wire enclosed area—figured it was a good place to hide. He crawled under the wire. We worked the whole area over with Loran weapon deliveries—then the clouds broke and we worked the fighters visually.

For the rest of that day and the next two days, the FAC's and fighters worked the area over. There were plenty of targets, since the Army advisors had selected about 600 in addition to the North Vietnamese artillery fire bases. Reports of tanks moving down from the DMZ promised further good hunting.

One episode illustrated the meaning of battlefield interdiction. A "Covey" FAC out of DaNang spotted a column of tanks moving down Highway One (The Street Without Joy) toward Dong Ha City. He called a Pave Nail FAC to come over and take a look—get a good position on them.

It was one of our preplanned targets. In fact the column was moving between two preplanned targets, so we went on secure voice and started it back through Task Force Alpha to 7th Air Force. In about 30 minutes 6 "Bufs" [B-52's] came in and rippled that road. They got 35 tanks, and we found out later the command bunker of the NVA division in that area.

For the rest of that day and the next two days Seventh Air Force worked the whole area over heavily. Objectives were twofold—first, to stop the invasion forces, disrupt their movement and cut their supply lines, and second, to beat down the defenses around Hambleton and Clark so that a pickup could be made. After several days of continuous air attack, the area looked relatively quiet. A FAC said later,

We had bombed it, we had destroyed all the troop camps, all the bridges, and the headquarters buildings, all the fire bases inside that area. There was no movement.

On 6 July, the first attempt was made to pick up the two survivors. Jolly 62, the rescue helicopter, was escorted by a flight of A-1E Sandys, entering from the southeast. The plan was to run in over Clark's position on a northwesterly heading, cross the river and the road, pick up Hambleton, make a left turn, pick up Clark about one kilometer away, and exit out to the South.

Jolly 62 got across the river safely, but as they started to go for Bat-21, they came under fire from a village. Jolly 62 was really getting hosed down—they started to turn right, heading right for the village, when somebody in the helicopter pressed down on the radio transmit button



Example of the pick-up of a downed airman form the jungles of SEA by an HH-53 "Super Jolly Green Giant." Note crewman and pararescueman at end of line (bottom right).

the FAC and the Sandys were screaming "turn left, don't turn right, turn left." But Jolly 62 couldn't hear because that mike button was down. The right turn put them into more heavy machine gun fire, sieving the helicopter. The Sandy pilots watched as Jolly 62 limped back across the river, but "a flame shot out below the main rotor . . . the helicopter nosed up, rolled left 90°, and pieces started falling from the aircraft . . . it hit the ground on its left side . . . fire continued to burn . . . finally consuming the entire aircraft." Clark had also been

watching from his location south of the river, and had seen a North Vietnamese signalman on the river bank with a big red scarf. Whenever aircraft came in at low level, he would wave his scarf, and all hell would break loose. That scarf activated every gun in the area.

For the next several days, the air forces kept the pressure on the whole area. There were plenty of targets astride the North Vietnamese lines of communications and plenty of action. The rescue had become an important struggle within the larger battle, as Allied airmen continued to sow the "circle of hate" around their men, and punish the gun positions and troops that fired on the Jollys and Sandys. The two survivors continued to hide and evade while remaining in contact with their small survival radios. Hambleton said later that "The radio was the most wonderful thing I had. I made it last 12 days on one battery . . . the radio was my biggest help."

The area around Hambleton and Clark was still pretty hot. Some of the airmen wanted to try another pickup, others said no—too risky. There was talk about putting in a U.S. Army light observation helicopter at night. As the FAC's talked to the Army advisors at DaNang about the possibilities,

In walked a U.S. Marine Colonel, built like a fire hydrant. He said, "I understand you have people you want taken out." Yes sir, we do. "Well, I have a full carrier of guys that would love to do that." We showed him where they were—he took a Marine ground team and some ARVN rangers and they went up the river.

After receiving word of the new plan Clark and Hambleton started working their way down river to meet the Marines. Clark was closest to the river. He swam and floated down river and met the team first. Hambleton had to come through a mile of mine field—it took four hours to reach the river. After resting, he crossed the river, found a log and began floating downstream. After dawn, he hid in the foliage along the bank.

For three nights, Hambleton made his way slowly downriver, his progress constantly followed by the FAC's. On the fourth day he sighted a sampan; using a pre-arranged signal he called out his rank and favorite color. The Marines on the sampan acknowledged—they took Hambleton aboard and covered him with leaves. The ordeal was nearly over. After 12 days, Bat-21 was on the way home.

The SA-7 Strela

The SA-7 surface-to-air missile made its first appearance in South Vietnam in April. Man-portable, fired from the shoulder, and possessing an infrared-sensing homing system, the SA-7 Strela became at once a serious threat to all aircraft, especially to helicopters and other slow-flying aircraft. Western intelligence had known about this Soviet wea-

pon for about three years, although it had never before been deployed in combat.

Allied flyers knew how to deal with the SA-2 missile from experience over North Vietnam, but the SA-7 was entirely new. Some of the first FAC reports described "funny little black missiles following some of the fast-movers off the target." Various countermeasures came into early use, especially among the slow-movers. FAC's and gunships raised operating altitudes. Crews kept alert to missile firings, making abrupt evasive maneuvers to avoid the missile flight path. A hard turn was sometimes effective, by allowing the fuselage and wings to cover the engine heat, upon which the missile homed. Aircraft with flare dispensers, such as C-130's, released flares in order to decoy the missiles.

SA-7's brought down several A-1's and FAC aircraft in the northern provinces during April and May. An SA-7 succeeded in bringing down the first AC-130 ever downed in South Vietnam on 18 June.¹⁰ The gunship was operating southwest of Hue at an altitude that should have protected it from the Strela. The target was in mountainous terrain—in a valley with hills around it that reached up to 3,500. The SA-7 was fired from the side of one of the hills. Sgt. William B. Patterson had the job of watching for missiles and AAA fire. He lay on the aft cargo door, actually hanging out into the airstream so he could get a good field of view below the aircraft. It was dark and Sgt. Patterson spotted the tell-tale flash of light when the missile was fired. It arched up toward the aircraft in a smooth curving trajectory, the motor burning with an eery blue-white light, holding straight to its course, not porpoising back and forth the way SA-7's usually did. When the missile was 2-3 second away, the crew fired a decoy flare, but the SA-7 kept boring right in, hitting the right inboard engine. There was a loud explosion and a flash of fire as the missile struck. The aircraft shuddered, rose up at the nose slightly and then settled down; the #3 engine separated from the wing. The flight engineer called on intercom that they were losing altitude, the pilots worked to pull her up. Someone else was calling out on the UHF radio that Spectre 11 had been hit by a missile.

Sgt. Patterson rolled back into the aircraft, unhooked the restraining strap which kept him from falling out, and reached for his chest-pack parachute. At about that time, the right wing came off and the aircraft started into a cartwheeling roll. Patterson managed to hook only one side of his parachute to his body harness, in his haste attaching it backwards, when fresh explosions blew him into the blackness outside. Fortunately, Patterson was an experienced chutist, with a hobby of skydiving. The sergeant lived to tell how he somehow found the rip-

¹⁰ Two AC-130 gunships had been lost over Laos in March to SA-2 SAMs, and one had been hit by an SA-7 but not downed over An Loc in Military Region III to the south.



Sgt William B. Patterson, one of three survivors of the first AC-130 shot down in South Vietnam.

cord in the darkness, and of his harrowing descent and landing—his chute still only half-connected. Three men survived, of the 15 aboard Spectre II that night. The three were picked up from the A Shau Valley the next morning by the Air Force Jolly Greens.

Don't Shoot at the FAC

The Communists found that it didn't always pay to fire at a FAC aircraft. One youthful OV-10 pilot, flying near the DMZ in early April, found himself a target for a SAM attack. Spotting the SAM launch point, he called for air strikes but none were available at that time. He was nearly out of gas and couldn't wait around, so he flew back to NKP, landed, and studied a roll of reconnaissance film taken that morning. Locating the SAM site on the film, he obtained accurate coordinates and the Loran bombing data from the Task Force Alpha computer. By now the whole DMZ area was covered with clouds—ideal for a Loran strike. Our young stalwart next called Seventh Air Force on the secure line and said "This is Nail—and I've got a SAM site just south of the DMZ, do you have a Loran aircraft available to hit?" The man at Seventh Air Force said "I have Greaser flight hanging over the Da Nang Vortac . . . I'll give him to you." Next, our young FAC went down to one of the controller consoles, borrowed the radio from the duty controller, switched frequencies, called Greaser flight, gave him

the Loran target data, the run-in heading, and cleared him for the strike. Greaser flight thought he was talking to an airborne FAC over Military Region I; he didn't know that his FAC was actually sipping coffee over a controller console in Thailand. So Greaser flight went in, released, and reported back "I have secondary explosions through three layers of clouds." Our friend got into a bit of trouble over that strike—it seems there was some question about whether the procedures he used were strictly according to "the book."

The Battle for Quang Tri

Meanwhile, the battle for Military Region I continued. By 2 April the NVA had overrun all 12 fire support bases and were ready to turn on Quang Tri. Intelligence on enemy positions and movements, previously provided by the South Vietnamese ground forces now in retreat, was lost. Such information was now available only through the aerial observations provided by the FAC's flying from DaNang and NKP. Upon request from Military Assistance Command Vietnam (MACV), Seventh Air Force issued orders to provide continuous daylight U.S. FAC coverage for the 3rd Division's entire area of operations. Later, during the height of activity at Quang Tri City, the requirement was extended to include 24-hour-a-day coverage. Loss of the fire support bases also meant that U.S. naval gunfire became the primary source of allied artillery in this area. Because of this, USMC gunfire observers on 2 April began flying with Air Force FAC's to direct and adjust the naval firing.

FAC responsibilities in Quang Tri Province were divided into three categories. "Fast FAC's," flying F-4's, operated deep into enemy territory. Ranging forward of the battle front, O-2A's and OV-10's provided direction for close air interdiction. Meanwhile, VNAF FAC's flying O-1's covered the front line of battle providing close air support for the ARVN. However, Major Brookbank, 3rd ARVN Division ALO, reported a breakdown in this arrangement:

The VNAF forward air controllers either failed to go to their assigned areas or they would not make contact with the ARVN ground commanders. Consequently, the U.S. FAC's had to assume complete responsibility for visual reconnaissance and close air support.

Probably contributing to this problem was the fact that VNAF forward air controllers did not enjoy the status or reputation of their U.S. counterparts. Colonel Harold B. Fisher made the following observations about VNAF FAC's:

The lack of pride and prestige . . . is a major hindrance to mission effectiveness. The lack of pride seems to stem from the fact that most VNAF officers somehow consider FAC's something less than

necessary. . . . FAC's are at the bottom of the military and social totem pole. . . . The ALO's that are assigned to direct the FAC operations at each Division are often selected because of a previous shortcoming and sent to the [forward operating locations] as punishment.

The effectiveness of the American forward air controllers in picking up the slack and directing close air support was reported by Major W. T. Sweeney, USMC, advisor to 2nd Battalion VNMC:

The Air Force FAC's were highly professional and eager to help us folks on the ground. During one three-day period on about 20 April when the enemy was putting in about 400 rounds of artillery and hitting other positions with direct fire weapons and antiaircraft guns, I had available through the FAC's nearly unlimited close air support. . . . Some of the air support was at night under flares and extremely effective. The FAC's stayed on station around the clock.

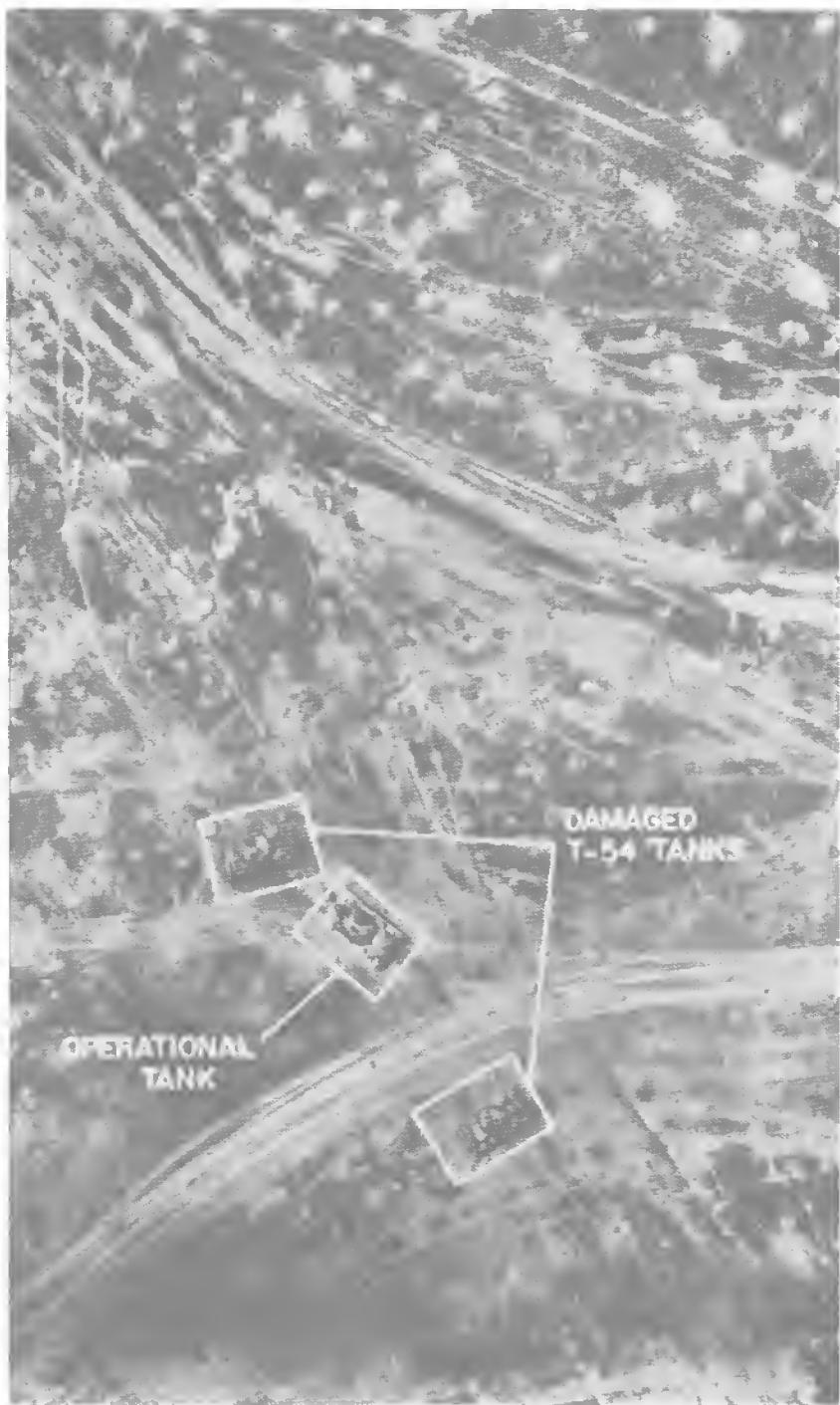
The South Vietnamese in mid-April launched a series of limited counter-attacks. In one action just west of Quang Tri, South Vietnamese Marines and airmen carried the battle to the enemy. U.S. Marine Lt Colonel G. H. Turley described the results:

As a counterattack was launched towards FSB Pedro, a flight of our VNAF A-1 aircraft came on station. Within two hours 13 of 16 T-54 tanks had been destroyed by mines, tank fire, air strikes and Vietnamese Marine Infantry weapons.

This action was exceptional. In most cases, South Vietnamese actions were cautious and produced no significant results. Some Americans thought that, in view of the strong tactical air support available, the South Vietnamese should carry the battle to the enemy and retake lost territory. Instead, a lull settled over the battle area. The North Vietnamese used the time to replace their heavy losses from the tactical air and B-52 strikes and to prepare for new attacks.

Finally, on 27 April, the North Vietnamese mounted multi-pronged attacks against the Dong Ha-Quang Tri area. The attacks began with heavy artillery and mortar fire; tank-supported infantry attacks followed. Once again the enemy wisely chose to strike when the weather hampered air support. The Allied situation deteriorated rapidly. Dong Ha fell on the 28th, and South Vietnamese forces fell back toward the Quang Tri Citadel, continuing defensive actions. As weather improved, air support again increased—to as many as 200 close air support sorties per day, the volume of effort straining the Allied tactical air control systems. Increased combat activity and poor coordination caused much interference between South Vietnamese artillery and fighter attack patterns—it proved difficult to restrain ARVN artillery from firing long enough to permit tactical aircraft to make their strikes. To meet this difficulty, continuous FAC coverage became imperative.

Early on the morning of 29 April North Vietnamese forces began



Two damaged North Vietnamese T-54 tanks lie "dead" near Dong Ha after a U.S. tactical air strike on May 7.

their final advance on Quang Tri. The city was threatened by the equivalent of four North Vietnamese divisions—about 40,000 men, outnumbering friendly forces three to one. Two known enemy regiments, with about 30 tanks, were situated northwest of the city; two regiments with 20 tanks were southwest; and one or two regiments with an unknown number of tanks were to the southeast. Frontal attacks started at 0315, and the situation soon became critical, although ARVN forces, supported by VNAF and U.S. tactical air, repeatedly repelled assaults and inflicted heavy casualties on the enemy. Major James R. Joy, USMC, VNMC advisor, described one of these battles:

During the night of the 28th of April (at about 0200 on the 29th) the enemy launched a tank and infantry attack on the north end of the bridge leading into Quang Tri City. The attack originated from the west and quickly rolled up the 2nd Regiments, the elements that were defending in that direction. The 18th Cavalry vehicles fought well and held the enemy on the north side as they fell back across the bridge. Then in one of the most timely and most devastating air shows ever witnessed, Tactical Air, guided by a Forward Air Controller with flare light, put in air strike after air strike on the enemy on the north end of the bridge. The attack was beaten off and resulted in 5 out of 5 tanks destroyed to the northwest of the bridge.

By the 30th things looked bleak, as sustained artillery bombardments and ground attacks drove all friendly forces into the confines of Quang Tri City. During the day, over 4,500 rounds of enemy artillery and rocket fire fell on the city. In hasty withdrawals from forward areas, the South Vietnamese abandoned intact much artillery, tanks, POL dumps, and stored ammunition. U.S. tactical aircraft and naval guns destroyed these supplies and equipment to deny their use to the enemy.

Considering the situation hopeless, the ARVN commanders at noon on 1 May issued evacuation orders. A rapid disintegration of the South Vietnamese command and control structure ensued, complicating the exit of American and South Vietnamese personnel from the walled Quang Tri Citadel. Seventh Air Force accordingly undertook the emergency evacuation of the trapped American advisors. Three American FAC's were assigned to work the Citadel situation, in addition to those covering the disorganized RVNAF units retreating to the south towards Hue. At 1400 hours, Seventh Air Force ordered the 37th Aerospace Rescue and Recovery Squadron, at DaNang, to begin the Quang Tri rescue plan. By 1525, a rescue task force was orbiting over water east of Quang Tri. While waiting, the Jolly Green crews used the time to recheck all items—guns, armor adjustments, and fuel and power computations. Aboard Major Jackson R. Scott's helicopter was an Army helicopter pilot who had been into the Citadel many times. He would serve as a guide for the lead Jolly Green. Scott's copilot, Capt. David E. Mullenix, spent much of the waiting time explaining the Jolly Green's characteristics to the Army lieutenant, who flew the

smaller Army Cobra and Huey. An American advisor inside the Citadel coordinated fire support and rescue efforts from his position. He described the events:

FAC . . . instructed to commence air support at 1530 with the Jolly Greens due in at 1535. The power station was blown at 1520 by the NVA and the control of tactical aircraft was turned over to I DASC¹¹ by land line. Army Advisors proceeded to burn classified materials and destroy all equipment with high explosives. Four squads had been formed in case the evacuation failed and a breakout had to be made. The air cover commenced at 1530 as F-4's delivered every type of ordnance. The tactical situation dictated normal safe distances be waived. So, we could do nothing but watch, wait, and thank GOD for the U.S. Air Force.

Finally, the FAC's called for the rescue forces to come in. There were four Jolly Greens and six Sandys. Voices cracked continuously over the radio. Sandy Seven, the A-1E leader, came on the air, "I'm going to put a smoke rocket on the beach where I want you to enter." Major Scott acknowledged and started in toward the Citadel. Two A-1's laid down 2 smoke screens between the enemy and the landing pad in the Citadel.

Artillery and rocket shells were exploding all over Quang Tri, and as Scott's aircraft drew near the LZ, machine gun fire could be heard, even above the engine's roar. The North Vietnamese were shooting blindly, however, since a heavy smoke screen blanketed three sides of the LZ.

"OK, we're down," somebody said. "Let's get those people on!"

"35, 36, 37, that's it, that's it," called Sergeant LaPointe who was supervising the loading, "Take 'er up!" Major Scott called the FAC, "This is Jolly Green Seven One—we're on the way out."

The second Jolly Green picked up 45 people instead of the expected 30. The chopper was heavy—after lift-off Capt. Roney S. Griffith crossed the Citadel wall descending and trying to milk up the rotor speed. They skimmed across the rice paddies trying to get up enough speed to climb, right past an enemy tank—luckily, it was just a burned-out shell. Halfway back to the beach they got up to 3,500 feet and for the first time Griffith figured they just might make it.

The third Jolly, piloted by Capt. John R. Weimer came out with 50 people. They picked up some light fire as they lifted off and as they moved out over the wall, they could see enemy ground troops making their way toward the landing zone. It appeared that all friendlies had been lifted out. But then, Jolly Green four picked up a radio message from the Citadel. "Hey," the voice said, "we've got some more people down here," Captain Donald A. Sutton took his HH-53 into the LZ.

¹¹ Direct Air Support Center—a subordinate operational component of the tactical air control system designed for control and direction of close air support and other tactical air support operations. The DASC normally collocated with fire support coordination elements.

They waited—nobody showed up. Maybe it was a trap. Sgt. William J. Thompson stuck his head out the back to have a look. A Communist soldier started walking a stream of AK-47 fire toward the helicopter. Thompson jumped to his 7.62-mm. minigun—a short burst stopped the soldier in his tracks. Sgt. Daniel G. Manion, firing the minigun on the opposite side, silenced sniper fire.

Meanwhile, Sutton confirmed by radio that there were no more survivors, and he moved Jolly Four out of there. Sutton's crew were the last Americans in Quang Tri. Within minutes, the Citadel was overrun by the enemy.

The Defense of Hue

With the fall of Quang Tri, it appeared that the North Vietnamese were in a good position to move against Hue. The road south of Quang Tri was littered with equipment and baggage of the disorganized South Vietnamese. Lt Col Ray E. Stratton described the scene from a FAC aircraft:

It was an appalling sight. From Fire Base Nancy at the My Canh River to the north along Highway One there was just a complete litter of U.S. built armored personnel carriers, tanks, and trucks. In the rice fields off to the east of the highway you could see where the tanks and APC's had run out of gas. They were abandoned in twos and threes.

Meanwhile, Vietnamese observers inside Hue described the scene in the former imperial capital as "an agony," with the streets full of soldiers running aimlessly about. To salvage the situation, President Thieu relieved the Military Region I commander and replaced him with one of South Vietnam's ablest generals, a veteran commander during the 1968 defense of Hue.

The new I Corps commander, Lt General Ngo Quang Truong, organized a line of resistance along the My Chanh River. Truong asked for and received American consent to shift the I DASC from DaNang to Hue, installing it adjacent to the repositioned I Corps Headquarters and a new Fire Support Coordination Center designed to coordinate artillery, air, and naval firepower.

The return of good flying weather in the first week of May at last permitted full application of the Allied air forces. An early task was the destruction of equipment abandoned by the South Vietnamese, especially the artillery and ammunition left at Fire Base Nancy, just north of the My Chanh. Meanwhile, in an apparent bid for fast victory, the North Vietnamese were now moving forces by daylight and in clear weather. Large convoys of 100 or more trucks, tanks, and artillery, drove down the roadways and across the beaches, totally exposed to air interdiction. General Truong established priorities for the classic air

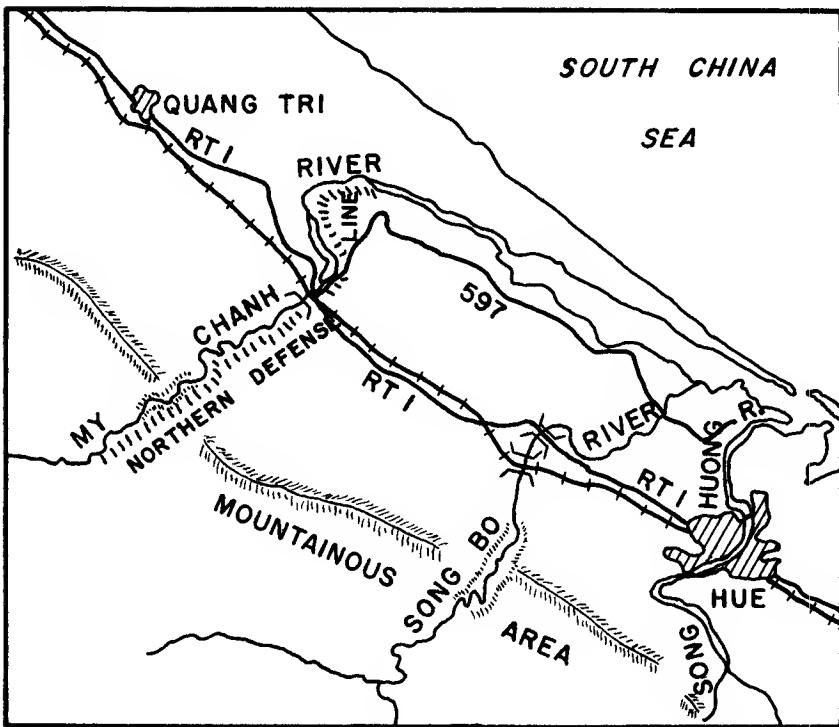


Lt Col Ray E. Stratton poses before one of the OV-10s from his detachment.

campaign now beginning, (1) 130-mm. artillery; (2) tanks; (3) smaller artillery; and (4) trucks. Only South Vietnamese ground units under attack could change this priority. The U.S. 7th Air Force Commander, General Vogt, said,

In the most intensive in-country interdiction campaign of the war, 7 AF organized and employed its air resources to choke off the enemy's resupply effort. At the same time, FAC's and gunships waged a search and destroy operation against the NVA's heavy artillery. TACAIR, close air support, and B-52 strikes continually frustrated the enemy's ground attacks by inflicting heavy casualties on troop concentrations.

MR I NORTHERN DEFENSE LINE



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The American fighter-bombers also made a concerted effort to bring down all bridges between the DMZ and the My Chanh. After three days, 45 bridges were made unusable. Blowing the bridges didn't stop the Soviet-made tanks, which could swim. But it made the going a lot tougher for all vehicles: tanks, trucks, self-propelled guns, and towed artillery.

The North Vietnamese 130-mm. guns presented special problems. The weapon had already proven both lethal and frightening to the foot soldier—extremely accurate, capable of firing seven rounds-per-minute, and with a range of 17 miles. It was towed by a tracked vehicle, capable of traversing almost any terrain, including jungle mountain trails. An intensive air campaign against these guns began on 7 May. Destruction of the guns, once located, was not a major problem, but detection proved difficult. Even when the general location of the gun sites was known, Communist camouflage techniques made specific location difficult. FAC and AC-130 crews flew over areas of suspected gun locations almost continually, in hopes of sighting muzzle flashes. Detection was especially difficult in daytime, and from the altitudes made necessary by the threat of SA-7 missiles. Nevertheless, the presence of

aircraft overhead, especially the AC-130's, caused the 130-mm. gun crews to limit their fire for fear of detection and destruction from the air.

Tanks were a different story—one of the most successful applications of airpower in this battle was against armor, especially in the area north of Hue where open terrain afforded little concealment. From 1 April through 15 August 1972, American and Vietnamese airpower destroyed 285 North Vietnamese tanks in Military Region I. Throughout all of Vietnam during April and May, over 70 percent of the tanks destroyed and damaged were victims of tactical aircraft and gunships.

Especially suited for stopping tanks were the new laser guided bombs (LGB), carried by the F-4's from the 8th Tactical Fighter Wing at Ubon. The weapon consisted of a 2,000 or 3,000-pound general purpose bomb, equipped with a laser guidance package and a small set of wings. An airborne observer, for example in a Pave Nail OV-10, directed energy on the designated target using a laser gun. The LGB sensor then locked on the reflected laser energy and glided itself onto the target. The LGB's proved phenomenally accurate. A rustic FAC, Lt Colonel Ray Stratton, described a tank kill using these "smart bombs:"

I found two tanks just north of the Marines position on the My Chanh River. It was at twilight. There was a PT-76 and a T-54. The PT-76 was trying to pull the T-54 out of a dry stream bed. They were just about a mile to the east of Route I and about a mile and a half north of the town of My Chanh. I called for ordnance and there was none available. I waited and finally Schlitz and Raccoon, two F-4's out of Ubon, showed up. They were equipped with a laser-guided bomb system known as Paveway One. Raccoon was the "illuminator," that is, he carried the laser gun used to direct the laser energy onto the target. Schlitz carried the laser-guided bombs.

They checked in with two or three minutes of "playtime" left—that is, they were running short on fuel. I briefed them on the way in to save time. I put the smoke down marking the target. By this time, the illuminator, Raccoon was in orbit, he asked me which tank we wanted to hit first. I suggested the one that was not stuck. Within about 30 seconds he said "I've started the music" meaning the laser beam was on the target. Schlitz was already in position for the drop—the LGB hit right on that PT-76, blew the turret off and flipped the tank over. The blast covered the second tank with mud, so I put another smoke rocket down, Raccoon "started the music" again. Schlitz meanwhile had pulled right back up on the porch for another run. The whole operation was over in three minutes. Two bombs—two tanks destroyed. I logged them in at 6:18 and off at 6:21—that must be close to a record of some kind.

Although the new laser-guided bombs were the most efficient air-delivered munition against tanks, most tanks were destroyed by 500-pound general purpose bombs. Many were released from VNAF A-1's



9

AC-130 "Spectre" Gunship—Note 20mm and 40 mm guns protruding from the side.

and A-37's—not as accurate as the F-4's with LGB's and far more vulnerable to ground fire, but nevertheless effective.

A proven asset in facing the North Vietnamese armor was the South Vietnamese Mk-48 tank. When properly employed it had consistently outgunned the T-54's and PT-76's. Many Mk-48's, however, had been lost to Communist rocket-propelled grenades and wire-guided missiles, and others had been abandoned for lack of fuel during the flight from Quang Tri. On 3 May, MACV requested the emergency airlift of six Mk-48 tanks, weighing 49 tons each, from Yokota Air Base, Japan, to DaNang.

MAC's C-5A "Galaxy" had been designed for this very task—moving out-sized cargo for the ground forces. Major Garry S. Baker, a C-5 pilot, described the special offload procedure designed to reduce offloading time and limit exposure of the C-5's to rocket fire. Tank drivers were carried on the C-5. Prior to landing, the tank driver was briefed by the C-5 loadmaster. After touchdown and during taxi, all the tie-down chains except for one were removed from the tanks. After the aircraft was parked, the tank drivers would start their engines while the loadmasters opened the massive cargo doors and brought the aircraft to the off-load attitude. The tank was then driven down the cargo ramp and on its way to the battle area. The off-loading sequence took approximately seven minutes, and enabled the C-5 to attain ground times of 30 minutes or less. Heavy armor was thus airlifted directly into a combat zone—an aviation first for the Air Force.

During May and June, both sides contended for the initiative. General Truong's forces were reinforced by the three brigades of the Vietnamese airborne division, successively airlifted north from Saigon by USAF C-130's and VNAF transports. On 13 May, Truong's Marines made a limited assault north of the My Chanh, supported by tactical air, naval gunfire, and helicopter gunships. On the 14th, South Vietnamese infantry struck southwest of Hue. B-52's and fighter-bombers hit ahead of the assault; FAC's directed artillery and fighters during the heliborne landings. A larger Marine assault north of the My Chanh on 24 May sought to disrupt enemy lines of communication. Marine helicopters, escorted by helicopter gunships, provided troop lift, while B-52's and tactical aircraft performed landing zone preparation and close air support. Tactical aircraft flew 77 sorties in support of this successful operation. One of the supporting B-52 strikes was credited with killing 300 enemy soldiers.

The North Vietnamese delivered their final main blows in late May. An armored thrust on the 20th gave the My Chanh River line its first real test. The Communists succeeded initially in crossing the river, but were forced back after several days. Tactical air destroyed 18 tanks and killed 300 enemy troops. A second major assault commenced on 25 May. Communist infantry, using "human wave" tactics, supported by mortars and artillery, crossed the My Chanh along the entire northern



A crew member guides a U.S. made tank down the ramp of a C-5A Galaxy at DaNang Air Base, South Vietnam.

front. Although outnumbered and engaged in hand-to-hand combat, the South Vietnamese forces held, and with air support forced the North Vietnamese back across the river by 29 May.

The stabilization of the situation on the ground made for effective airstrikes. Enemy guns and troop positions could be readily fixed in location for pounding from the air. North Vietnamese build-up and resupply efforts usually brought fast reaction from B-52s and tactical air. One damage assessment sweep, following a B-52 strike on 9 June, revealed 60 bodies, 14 crew-served weapons, 2,000 pounds of TNT, 712 rounds of mortar ammunition, 402 B-40 rockets, 10,000 rounds of anti-aircraft ammunition, and 20,000 rounds of AK-47 ammunition. On 28 June, Truong's troops crossed the My Chanh and headed north. The defenses of Hue had held and the battle to retake Quang Tri had begun. The question was no longer whether the enemy could be stopped, but how effectively could the South Vietnamese eject the enemy from Military Region I.

The application of airpower in Military Region I had been massive. Allied tactical fighters flew some 18,000 sorties in the region during April, May, and June. USAF crews flew 45 percent of these missions, the U.S. Navy and Marines 30 percent, and the South Vietnamese (VNAF) 25 percent. Additionally, the American B-52's flew some 2,700 sorties, dropping about 57,000 tons. USAF losses in the region were modest, however regrettable—20 aircraft and 31 crewmembers; U.S. Navy lost two aircraft, the U.S. Marines one, and the South Vietnamese ten. The Allied airmen surmounted major problems in three areas, overcoming extremely bad weather, unprecedented enemy anti-aircraft and missile fire, and internal growing pains associated with the multi-fold expansion of effort. The air weapon initially slowed the momentum of the Communist assaults, battered enemy forces and communications during the period of recovery, and spearheaded the Allied counter-offensive.

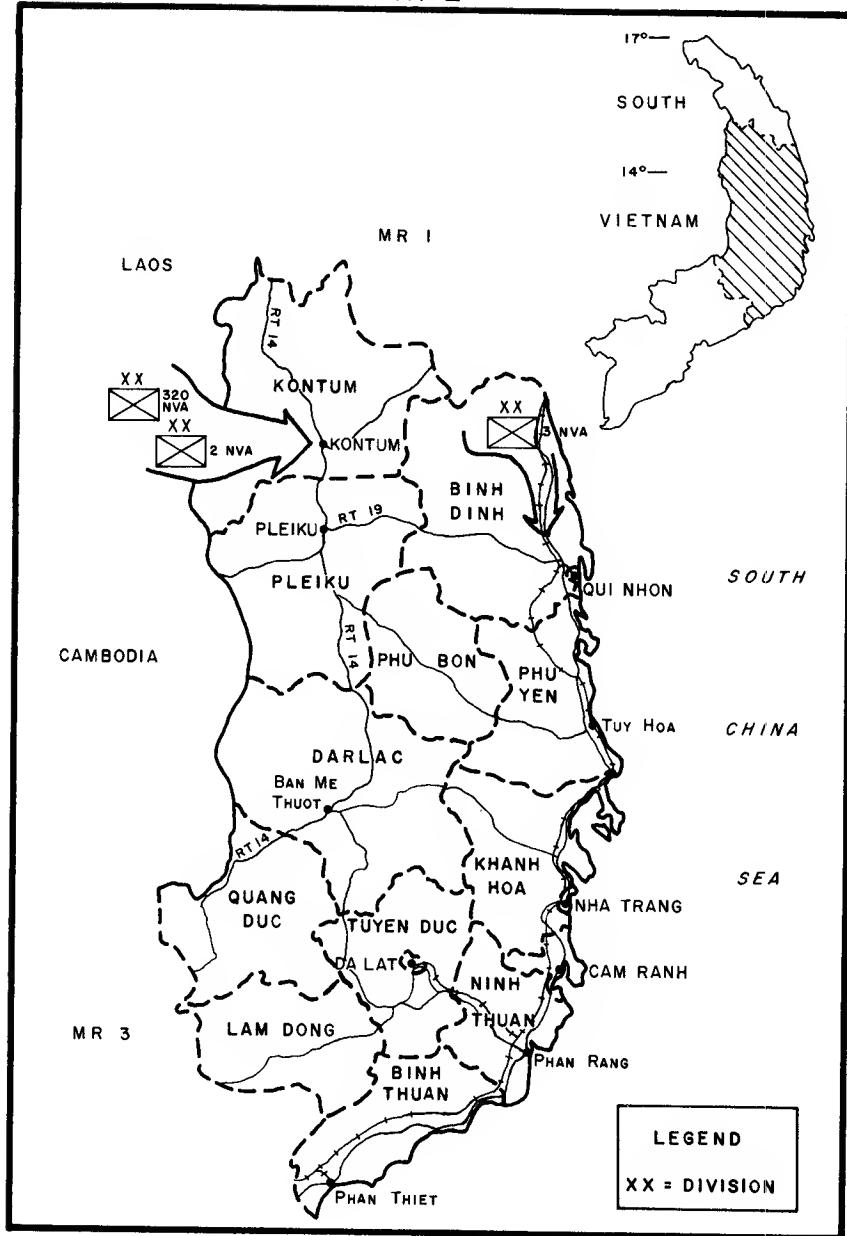
Chapter IV: The Battle for Military Region II

The rugged, forested highlands of the tri-border—that region of South Vietnam near the juncture with Laos and Cambodia—was long a familiar battleground. Allied forces held the major towns—Pleiku, Kontum, and Dak To—and garrisoned a series of outlying camps and fire support bases, many of them resupplied exclusively by air. Communist forces moved about the region, periodically bringing in fresh forces to concentrate against a particular objective. The Allies tried to detect such buildups by patrol and reconnaissance actions, using air and artillery firepower for the work of destruction. Major battles occasionally—south of Pleiku in late 1965 (when the Americans first faced the North Vietnamese), near Dak To in late 1967, and during the Tet Offensive. The departure of the American 4th Infantry Division in the early stages of Vietnamization left the defense of the region principally with the South Vietnamese II Corps headquartered at Pleiku.

In their 1972 invasion of the Central Highlands, the Communists went beyond past techniques. Combat units still infiltrated around and behind Allied positions, but in order to press the offensive were less careful to conceal activities from air observation. Attacks by fire on Allied posts were more widespread and heavier than any of the past. For the first time in the region, the Communists in 1972 employed 130-mm. artillery. Where feasible, tanks or armored vehicles spearheaded infantry assaults. Finally, the overall dimension of the effort appeared greater than in any past campaign, with coordinated offensive action developing along what gradually emerged as a definite line of advance.

Most of the invading forces and their logistics support apparently came from the tri-border junction, their efforts focusing southward along Highway 14 toward Pleiku. Three days after the initial shellings of 30 March, clashes had occurred at eight of the ten Allied fire support bases in the region. Attacks appeared heaviest against positions on “rocket ridge,” west of and commanding Highway 14 between Dak To and Kontum. Pilots reported heavy anti-aircraft fire north of Dak To, and on 3 April the Communists closed down the main Dak To airfield. The early objective seemed to be Dak To, but as pressures emerged

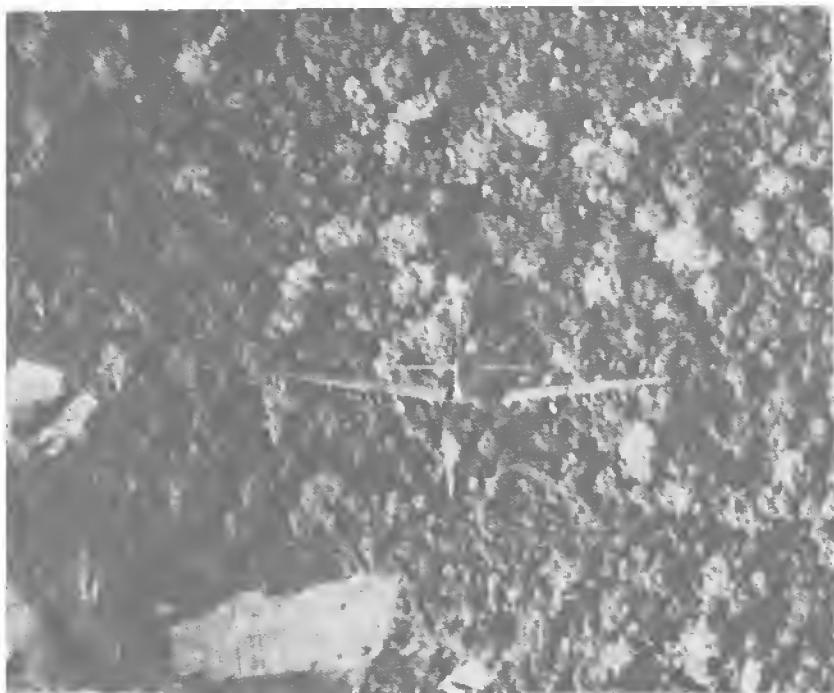
MR 2



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further south against Kontum and Pleiku, the larger enemy plan became clear.

The South Vietnamese 2nd Airborne Brigade, with three battalions, was already committed in rocket ridge, reinforcing the assigned forces of II Corps. The unit had been shifted into the highlands on 4-5

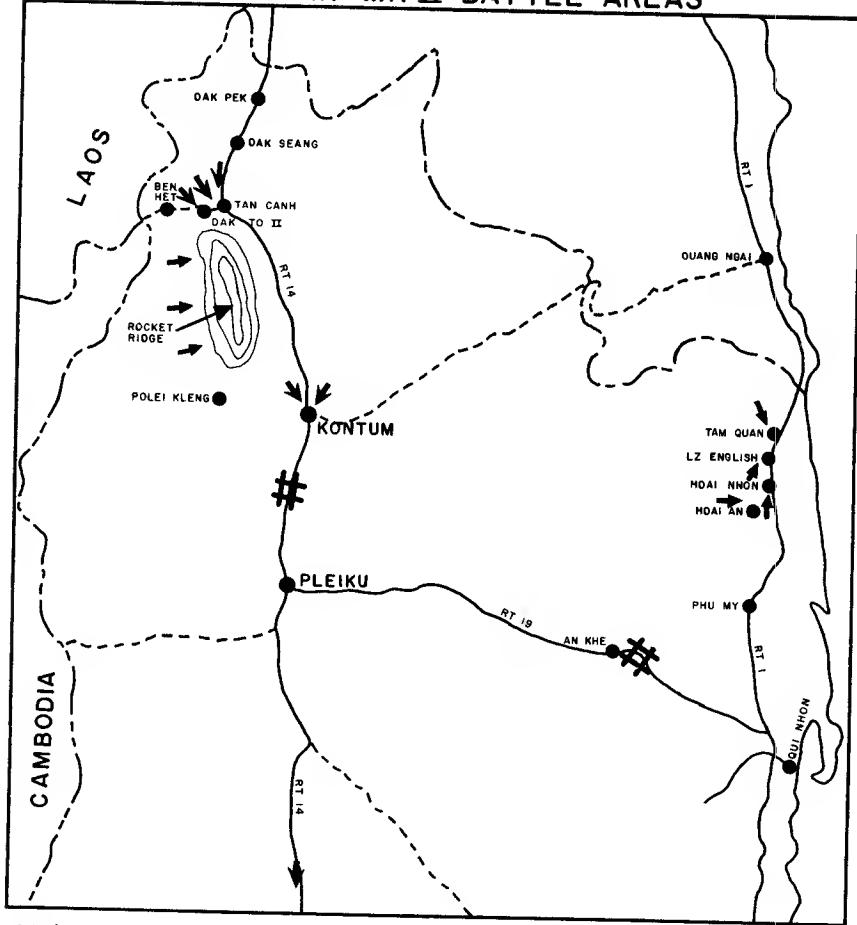


An A-1 attacking Viet Cong positions in a heavily forested area of South Vietnam.

March by the VNAF C-123 force. On 31 March, USAF and VNAF transports instituted a fresh airlift, hauling further airborne troops and their equipment from Tan Son Nhut to Kontum. For 36 hours, eight C-130's flew continually, hauling the troops and 425 tons of material north. Meanwhile, Vietnamese C-123's loaded and refueled on the other side of Tan Son Nhut flight line—the USAF advisor to the VNAF Airlift Control Center stated that every scheduled VNAF sortie during the first morning was executed without cancellation. Trucks, jeeps, howitzers, ammo, rations, and troops, all organized by exact plane-loads, moved out from a staging area to board the waiting transports. Offloadings at Kontum were fast; aircraft were usually airborne after only 15 minutes on the ground. The movements exemplified the importance of the fixed-wing airlift arms in Allied strategy, for fast reinforcement of threatened regions.

The Allies further replied to the intensifying enemy pressure with increased airstrikes, despite persistent cloud cover, rain, fog, and low ceilings. Heavy strikes against North Vietnamese forces in the high ground near Dak To, allowed the Allies to reopen the airstrip on 9 April. Joining in the fight were the B-52's bombing from high altitude under ground radar direction, hitting troop concentrations, weapons,

NORTHERN MR II BATTLE AREAS



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positions, storage areas. Mr. John Paul Vann,¹ senior American advisor in the region, reported on the 9th that the airstrikes of the past week were "the most lucrative I've seen in the past six years." The 11th Airborne Battalion on 13 April, repelled attacks against Fire Support Base Charlie, aided by (according to Vann) "a superbly coordinated reaction by USAF and VNAF tactical air, helicopter and fixed-wing gunships."

Except for a small number of transport and rescue aircraft at coastal

¹ John Paul Vann was a legendary individual. He spent nearly ten years in South Vietnam starting in 1962 as an Army Lt Colonel advisor. While an outstanding advisor, he was critical of the tactics being used. He returned to the U.S., resigned his commission, and returned to Vietnam. Full of energy and self confidence, he was the senior American advisor in MR II, actively involved in the defense of Kontum, at the time of his death in a helicopter crash 9 June 1972.

bases, no American aircraft were based in II Corps. USAF fighter-bomber strikes in the region were flown from external points, principally the bases near Saigon and in Thailand. Reacting quickly to the highlands situation, the Air Force on 3 April established a forward operating location for forward air control (FAC) units at Pleiku. USAF O-2 and OV-10 aircraft and crews subsequently operated from Pleiku, bringing the FAC's close to the scene of action and giving them greater time on station than if operating from Tan Son Nhut or DaNang. To improve employment of the Thai-based fighters, a turn-around facility servicing F-4 aircraft was established at Bien Hoa on 15 April. Thereafter, F-4's landed at Bien Hoa after strikes, refueled and rearmed for second strikes before returning to Thailand. The innovation improved tactical air effectiveness throughout the southern two-thirds of South Vietnam.

The F-4's (or Fox-Fours in FAC jargon) usually flew in the standard four-ship tactical formation. Mission flying time was normally about 2 hours. Ordnance loads varied according to the mission—a flight might have seven BLU-27 napalm cans, a load of M-117 (750-pound) bombs, or Mk-82 (500-pound) bombs. Most missions were scheduled against troops-in-contact (TIC) situations or known enemy location targets.

VNAF forces in the region were not insignificant. A squadron of A-1 fighter-bombers operated from Pleiku under the operational control of II Corps. Some 25 O-1 and U-17 aircraft at Pleiku served for FAC duty. Based at the coastal bases of Nha Trang and Phu Cat—60 and 120 miles away, respectively—were 24 A-37's and 25 FAC-type craft. Several squadrons of UH-1 helicopters operated from the three bases.

All USAF tactical strike sorties were controlled and scheduled by the country-wide Tactical Air Control System, including its apparatus of FAC's, DASC's, and radar posts and airborne command posts. Central control and allocation was thus attained, making possible the flexible application of theaterwide strike capabilities at the places most needed, and exploiting the range and flexibility of the modern fighter-bomber.

Besides their key role in directing the fighter-bombers to targets, the FAC's possessed the closest view of the air application to the battle. First Lt Terry Pfaff, of Moses Lake, Washington, described one remarkable—but not atypical—mission near Dak To in mid-April. Three USAF FAC's, several VNAF FAC's, and numerous helicopters were operating at low altitudes in an area of about four square miles. The dangerous congestion of airspace, compounded by the chronic bad weather, was unavoidable because of the intensity of the battle situation. Pfaff was surprised to find tanks "just about everywhere," while North Vietnamese troops "were walking down the roads like they owned the place." Pfaff selected a target of two tracked vehicles hiding under trees along the road, and brought in a flight of F-4's. The fighters delivered their ordnance right on target. Of the two vehicles, one was



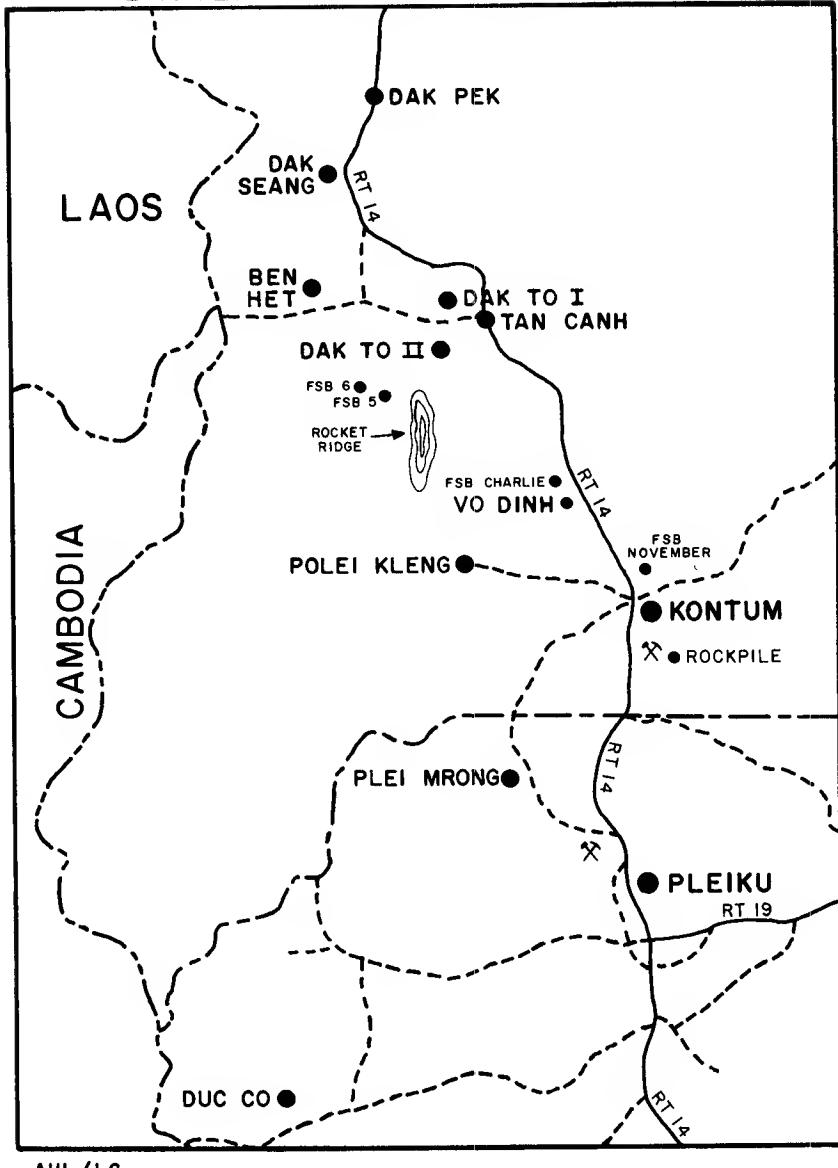
First Lt Terry Pfaff—a Forward Air Controlled during the battle for Dak To.

left burning and exploding, and the other was badly damaged. Pfaff added at the end of the day, he was surprised that he had not been shot down by the intense ground fire, up to 57-mm.

By the third week of April, the Communist succeeded in overrunning several fire support bases. Intensified North Vietnamese action against Dak To and nearby Tan Canh on 23 April brought attention to the work of the AC-130 gunships, operating overhead through the hours of darkness from their base at Ubon, Thailand. The AC-130 crews destroyed five tanks moving against Tan Canh. The enemy survivors, however, succeeded in overrunning the defenders at Tan Canh.

The same night, Capt Russell T. Olson and his AC-130 gunship crew flew to Dak To on a fire-support mission as Spectre 11 and found T-54 tanks moving toward friendly positions. While engaging the tanks, Spectre 11 drew 23-mm. and .51-caliber AAA fire, yet was able to disperse the enemy's concentrated force. At the end of the scheduled mission, a replacement aircraft was not available, so Capt Olson made a fast turnaround to rearm and refuel at Pleiku, and Spectre 11 returned to the battle area. Since clouds covered the area, the gunship flew below the normal daylight working altitude. The aircraft drew fire

BATTLE FOR TAN CANH / DAK TO



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up to 57-mm. as it first covered an evacuation of ARVN personnel by helicopters, and then acted as a FAC for tactical aircraft which experienced difficulty locating targets because of the weather conditions. While the bad weather made a total assessment of the mission impossible, Spectre 11 knocked out at least seven enemy tanks at Dak To.

Despite the efforts of Spectre 11 and the fighter-bombers, together destroying half the attacking tank force, Dak To and the airfield fell to

the enemy on 24 April. The defenders had apparently been demoralized by the number of tanks present and the weight of the infantry attacks. A flood of refugees moved southward down Highway 14 toward Kontum. A USAF FAC looked down on the exodus:

We were operating north-east of Kontum, north of the fire base (Fire Support Base Charlie). There were three busloads of refugees coming down the road. The North Vietnamese opened up on them with RPG's—blowing hell out of those busses. People began flying all over.

The same night, the Communists marched about 200 civilians into the wire at the fire base. The South Vietnamese soldiers left by the back door—unwilling to fire into their own refugees. Told to destroy the fire base the next morning, the USAF FAC's found the North Vietnamese preparing to haul away the captured 105-mm. guns, hooking them to trucks. The FAC's brought in a flight of F-4's, just arrived on the scene from Ubon and armed with laser-guided bombs. Three perfectly placed laser-guided 2,000-pounders took out three guns and five trucks in short order.



Captain Russell T. Olson, pilot of an AC-130 which knocked out 7 enemy tanks in one night over Dak To.

The situation in the highlands looked perilous. Kontum was under siege, after Communist troops planted themselves across Highway 14 south of the city simultaneous with the victory at Dak To. Pressures soon renewed against the isolated camps and positions bypassed before. Intensifying the crisis was a decision to airlift the airborne out for employment in other regions. During the entire month of April, over 3,400 USAF, Navy, Marine, and VNAF attack sorties had pounded targets in the II Corps area; the heavy application of airpower had blunted, but not halted, the enemy advance.

Air Transport and the Highlands Campaign

Linking Pleiku with the port cities of the coast was Route 19, its 90 miles of winding roadway capable of supporting heavy truck traffic but vulnerable to sabotage or ambush. During early April, clashes along Highway 19 raised concern for security of the important highlands lifeline. On 11 April North Vietnamese elements succeeded in blocking the road at the An Khe Pass near the old American cavalry base. Despite heavy Allied airstrikes, the Communists held the roadway closed for 16 days, requiring that all resupply and reinforcement into the interior be by air.

John Paul Vann stated on 16 April that stockages in the highlands were down to three days, and that although an air LOC had been started, there simply was not yet enough transport available to sustain the necessary military effort. The next day, three C-130's—each fitted with large rubber fuel bladders in the cargo compartment—began special POL deliveries into Pleiku. The bladders permitted delivery of 4,500 gallons of fuel per sortie, and could be emptied by pumps carried in the aircraft in 15 minutes. Three such "bladder-bird" aircraft made 12 trips to Pleiku from Tan Son Nhut and Cam Ranh Bay on the 17th. The effort continued the next day, and on the 19th a fourth ship joined the effort—three planes hauled JP-4 and one carried aviation gasoline for reciprocating engines. Other C-130's arrived regularly with hard cargo, interspersed with C-141's temporarily tasked to perform missions inside Vietnam.

After offloading at Pleiku, many of the cargo-carriers took aboard passengers—refugees from the battered region headed for safer places. Many were dependents of Vietnamese military men; few carried more than scant possessions. One C-141, flown by Capt Richard Semingson and crew, took off with 394 passengers—the most ever lifted by a Starlifter and more than four times the normal load. Observers on the ground at Tan Son Nhut were amazed at the endless file of humanity streaming from the ship's tail doors.

Critical to the flow of aircraft, cargo, and refugees was the work of

the VNAF aerial port at Pleiku. Colonel Peter Van Brussel, Senior USAF advisor in the region, watched the air terminal workload expand:

This challenge was met not only by job skill and knowledge, but more important by sheer hard work and determination. For two full weeks the aerial port personnel at Pleiku Air Base worked 24 hours a day, sleeping when they could in the aerial port area.

With limited ground handling equipment, and under the threat of intermittent shelling, the VNAF aerial port managed the offloading and processing of POL and hard cargo with (according to Van Brussel) "imagination and originality." The American officer's glowing praise indicated that in this important function, the past programs of Vietnamization had been fruitful.

The reopening of Highway 19 in late April ended the critical dependence on airlift for transport to Pleiku, but the closure of Highway 14 north of Pleiku on 24 April left the defenders of Kontum wholly isolated except by air during more than two months of heavy and close fighting. Bladder-bird deliveries into Kontum commenced on 23 April, expanding to 24,000 gallons the next day, rebuilding reserves against daily consumption of 15,600. Meanwhile other aircraft landed with hard cargo, departing with the last of the airborne brigade ordered out earlier. Enemy shells periodically interrupted flight-line activity, and ground-to-air fire harassed arriving and departing planes. USAF control and aerial port teams worked on the ground at Kontum to speed the flow, as the volume of shelling increased daily.

Hair-raising episodes became commonplace. A bladder-bird received major damage on the 26th. The pilot, Lt Colonel Reed Mulkey, member of the 50th Tactical Airlift Squadron and a veteran of the 1968 campaign, was attempting departure when a rocket detonated immediately in front of his aircraft, flattening the landing gear, silencing one of the engines, and causing major fuel leaks. A three man repair party arrived to inspect the damage and begin repairs. While they worked, more rockets began detonating—one ventilated a C-130 which had just landed, and another made a direct hit on a VNAF C-123 parked nearby. U.S. Army and USAF bystanders fought the fire with hand extinguishers, courageously climbing inside and atop the burning hulk. An 11-man repair team arrived to complete repairs shortly before dusk on 30 April. Working with flashlights and into the morning, the team finished at midday. Rockets continued to detonate, nearly destroying a VNAF C-123 taking off loaded with refugees. Mulkey's repaired craft and a relief C-130 barely managed takeoffs in early afternoon, as both received additional shrapnel holes. Mulkey—with fresh fuel leaks and a lost engine on the previously undamaged side—made a three-engine emergency landing at Pleiku. In a separate episode, SSgt Floyd J. Monville, a fuels NCO, received acclaim for successfully offloading a damaged C-130 and transferring its bladder system to another C-130, all under fire, using the only vehicle available—a small warehouse type

forklift. Monville was later nominated for the Jaycee's award, "America's Ten Outstanding Young Men of 1972," both for his exploits at Kontum and for his role as volunteer director of the Go Vap Orphanage in Vietnam.

During the eight days prior to 3 May, the C-130's made approximately 15 landings daily at Kontum—a typical day's work was seven loads of munitions, five of POL, and three of rice. During the same eight days, VNAF transports made 15 deliveries. On 2 May, a C-130 lost several feet of wingtip in a collision with a helicopter at the crowded airhead, but managed an emergency landing at Pleiku. Rocket damage to another C-130 the next day brought a decision to shift to night operations. Meanwhile, rocket attacks were beginning at Pleiku, threatening both C-130's on the ground there.

The start of C-130 night landings at Kontum curtailed the Communists' increasing ability to direct shells at individual aircraft on the ground. Delivery total held at about the former level, but shortages caused by heavy munitions expenditures brought pressures to resume day operations. After several days of perilous daytime efforts, the Air Force went again exclusively to night work, promising that resupply requirements would be met in full. Incoming rounds ignited the POL storage area on 15 May, and two more VNAF C-123's were hit and set afire by shells on the 16th. Later, three C-123's immobilized on the Kontum ramp were bulldozed away to make room for operational traffic.



Col Andrew F. Iosue (right), Commander of the 374th Tactical Airlift Wing.

On 17 May, a C-130 crashed on takeoff, apparently damaged by exploding rockets. The lone survivor was rescued by an American helicopter. Seventeen night C-130 deliveries on the 19th and 15 more on the 20th, sustained the flow of supplies. Another C-123 was destroyed by rockets on the 20th, and other arriving ships turned away because of ground fire. An AC-130, damaged after midnight on 22 May, was further damaged and finally destroyed by artillery fire the next day. The following night, 22-23 May, two planes received shrapnel damage, one managing an emergency landing at DaNang.

The landings continued, 13 delivering on 23-24 May and 17 the next night. Spectre gunships provided overhead fire support. Standard C-130's now delivered POL in cylindrical containers, allowing faster offloading than with the bladder-birds. The dark approaches into the high airhead called for peak flying precision. Useable runway length was only about 3,100 feet—close to the minimum for heavily loaded C-130's. To avoid ground fire from sectors of Kontum city, crews used overhead circling approaches down to 3,000 feet, avoiding use of landing lights until the last possible moment. Portable lights outlined the location of the runway. Colonel Andrew Iosue, commander of 374th Tactical Airlift Wing—the parent unit of the C-130 crews—felt that the night landings at Kontum were "a dicey operation," and that the absence of accidents under the conditions was remarkable. Landings ended shortly before dawn on the 25th, with Communist troops lodged at the east end of the runway, and delivering small arms fire from three directions at the last C-130 lifting off with the USAF ground teams. Fighting continued throughout the city, with resupply by American and VNAF Chinook helicopters, while the USAF prepared to start C-130 paradrops.

An important forerunner of the Kontum airdrops were the drops begun in mid-May at several isolated and hard-pressed camps farther north and west. Dak Pek, Mang Buk, and Ben Het received a total of 19 C-130 drops during May, using techniques developed recently for release from altitudes above the level of anti-aircraft effectiveness. Drops began at Kontum with a single mission on the afternoon of 27 May. During the next four days, 19 C-130 loads were parachuted to a drop zone near the city's south-west corner (the Communists held much of the east half of the city). With some success in pushing the Communists from their sectors, the drop zone was shifted to the more convenient north-west sector; 68 C-130 drop sorties took place during the first seven days of June. Although retrieval parties on the ground had trouble keeping up with the volume of deliveries, the II Corps G-4 reported that the drops "have been very accurate, and nearly all parachute bundles are impacting in the recovery area." Much of this success reflected the painful evolution of effective methods experienced earlier at An Loc, and to be described in the next chapter.

Upon Vann's request, C-130 landings resumed on the night of 8-9



Example of a high altitude AWADS airdrop by a crew from the 61st Tactical Airlift Squadron.

June. Six 130's made blacked-out GCA approaches and landings that night. During C-130 approaches, friendly artillery fire was directed into the likely danger area to discourage enemy shelling, and flare shells were detonated near the runway in hopes of distracting any surface-to-air missile. The daytime drops continued, ending on 14 June after another 48 sorties since the 7th. Through the 19 days of drops, not a single C-130 received battle damage.

A further aspect gave added significance to the Kontum resupply. Sixteen of the drops were performed using the All Weather Air Delivery System—the AWADS—by ships and crews recently deployed under Constant Guard IV from the United States. A preliminary mission on 1 June attained moderate success at Svay Rieng in Cambodia. Two days later, two aircraft released at Kontum, aiming with the aid of a ground radar beacon transponder. Accuracy appeared satisfactory, but half the bundles could not be recovered because of enemy fire on the drop zone. During 7–14 June, C-130 crews made another 15 AWADS drops at Kontum. Navigators aimed using the self-contained radar and computer system, now using reflected radar returns. A bridge south of the town served for late computer update; a river bend at the city served as the final offset aiming point. The largest recorded impact error was 300 meters; all drops were from 10,000 feet. One drop, on 12 June, was performed in two-ship formation using the electronic

station-keeping equipment (SKE), the trail ship dropping 5.4 seconds behind the AWADS-equipped leader. The result was spectacular—the second ship's load landed atop the leader's. The only significant problems in SKE appeared to be the trail ship's difficulty in flying in the leader's turbulent wake while heavy and slow.

The Kontum resupply thus seemed significant in three respects. First, the operation represented another example of the sometimes pivotal role of air transport in sustaining isolated ground forces. Second, the difficult and dangerous mission effort verified again the remarkable qualities of the USAF professional airlifters. Finally, the battle served as an impressive demonstration of the new AWADS, and suggested that after three decades, the Air Force was close to solving one of its chronic weaknesses—accurate parachute resupply under conditions of night or bad visibility.

Airpower and the Final Battles in the Highlands

The first half of May brought continuing heavy application of airpower, as the North Vietnamese forces pressed toward Kontum. Numerous pitched battles took place in nearby villages, camps, and fire support bases. One such engagement occurred at the compound of Polei Kleng, about 15 miles west of Kontum. An AC-130—Spectre 03—was already airborne in the highlands region, learning by radio that Polei Kleng was under attack by a Communist regiment with tanks. The situation was so serious that American personnel had already been evacuated. The AC-130 crew talked directly with the South Vietnamese commander on the ground, and placed fire all around the embattled post. The gunship expended a full load of ammunition, including 96 rounds of 105-mm. fire, aiming at enemy muzzle flashes and a bridge. The aircrew's mission report noted, "Situation quiet upon departure." Later reports revealed that Spectre 03, assisted by fighter-bombers, had killed over 350 enemy troops, destroyed the bridge, and repulsed a full-scale attack by a North Vietnamese regiment.

Similar episodes occurred at such places as Ben Het, Dak Pek, Dak Seang, and Plei Mrong—key points on the infiltration routes into Military Region II from the tri-border proper. Tactical air strikes climbed to 45 on the night of the 6th. On 9 May, the Communists overran Polei Kleng, and breached the defensive perimeter at Ben Het with a tank and infantry attack. The Ben Het defenders, however, managed to hold, and by 11 May Ben Het was clear of enemy forces. Meanwhile, fighting intensified at the fire bases around Kontum. Through the battles for the Central Highlands, USAF B-52's were used to hit Communist forces while preparing for attacks, disrupting his timetable and inflicting losses in men and material.

The Pave Nail OV-10's went to the highlands in early May, joining

the Covey FAC's previously deployed to Pleiku from DaNang. Equipped with the laser designator, the Pave Nail's primary purpose was to kill tanks, working with the F-4D's based at Ubon. One OV-10 FAC reported a vivid tank-busting mission in the highlands:

One fellow took a tank out right on top of a command bunker in a Special Forces camp. The camp was under attack and the guy on the ground said, "I've got a tank trying to crush the command bunker." A Covey FAC was working overhead with the defenders. The Covey called Pave Nail, and they arranged to get F-4's with LGB's committed. The Special Forces trooper asked, "What's a Pave Nail," at which time they told him, "Stand-by, and we'll show you." The OV-10 illuminated the target with laser energy, while the F-4 rolled in and released a 2,000-pound bomb. It hit right beside the tank and blew it into the wire. There was a long silence from below. Finally, the voice came back on and said, "What did you call that?"—"Pave Nail."—"I need about two more."

The Communists launched their first major attack against Kontum city on the morning of 14 May, attacking from the north and northwest with battalion-sized infantry and two columns of tanks. The South Vietnamese defenders held their ground well, and were not demoralized by the presence of tanks as at Tan Canh. South Vietnamese forces used Light Anti-tank Weapons (M-72) to engage the attackers, and American and Vietnamese fighter-bombers during the morning put several tanks out of action.

Coordination between South Vietnamese and U.S. forces was at a high point. For example, around noon a VNAF FAC had used up all his marking smoke rockets. These were 2.75-inch rockets with white



UH-1 helicopter with TOW Missiles.

phosphorus (Willie-Pete) warheads that made a white smoke visible to the fighter aircrews. Becoming aware of the situation, a USAF FAC in the area marked the target with smoke as he was given directions by the VNAF FAC in English. The VNAF FAC was then able to "talk in" his VNAF strike aircraft, using the mark which was placed by the American.

Joining the fighter-bombers was a small task force of U.S. Army helicopters, equipped with Tube-launched, Optical-tracked, Wire-guided (TOW) anti-tank missiles. Three UH-1B helicopters and crews, along with mechanics and hardware for the TOW system had deployed in late April from the United States, travelling by MAC C-141. The wire-guided missiles were released at close range, and packed a substantial warhead. Employed against tanks and trucks in the Kontum area, of the first 101 firings only 12 were scored as misses. Through 12 June, the Army claimed 26 tank kills by the helicopter-borne TOW's, including at least 11 T-54's in the Kontum area. USAF crews claimed comparable effectiveness against enemy armor, confirming the destruction of 15 tanks and damage to 59 others, from the start of the invasion through 18 May. Marginal weather, smoke, foliage, or darkness prevented certain damage assessment during nearly half the sorties, holding down the stated claim.

The combined fighter-bomber and helicopter gunship force had been impressive in breaking up the 14 May attacks at Kontum. A second and even heavier North Vietnamese effort against Kontum opened on the morning of 25 May. Attacks began in the southeast sector, followed by attacks in the north and northeast. By afternoon of the 25th, all South Vietnamese artillery had been neutralized, and support from the air became the only firepower available to the defenders.

During the night, Communist action intensified, bringing additional tank and infantry assaults from the northeast. Bad weather and darkness seriously hampered effective air support. Just as the attack seemed about to overrun the defenders, the weather conditions improved, allowing the fighter-bombers and helicopters to again engage the Communist armor. The U.S. Army UH-1's with TOW's destroyed ten tanks and two machine-gun positions. The momentum of the attack thus became disrupted, and the morale of the defenders for the moment took strength.

During the next day, 26 May, over 1,000 rounds of enemy artillery and rockets pounded the city. Enemy units held parts of the city, and the airfield was now closed, necessitating helicopter landings at a soccer field. The situation remained critical for the next three days but South Vietnamese units gradually took the initiative and counterattacked to regain lost ground. Air support continued, including night gunship actions against enemy tanks and B-52 missions against enemy staging areas. By 29 May, Vann stated that conditions had improved, a result

of the tremendous B-52 and tactical air support during the preceding critical days.

The enemy pulled out of Kontum city during the first half of June, still pounded by the B-52's—the bombers attacked 145 regrouping and refitting areas between 6 and 30 June. Pockets of enemy forces northwest of Kontum, however, continued to oppose South Vietnamese clearing operations well into July. Fighting remained heavy south of Kontum, in battles to reopen the roadway to Pleiku. The Communists held heavily fortified positions known as the "rockpile" astride Highway 14 at Kontum Pass, necessitating actions reminiscent of those in the battle for Cassino in World War II. B-52's and fighter-bombers contributed heavy support, and the Pass was cleared on 30 June. By mid-July, armed convoys were once again travelling between Pleiku and Kontum.

During the same weeks that the two North Vietnamese divisions threatened to overrun the Highlands, a third Communist division attacked in the coastal regions of Binh Dinh province, threatening the port city of Qui Nhon and the principal roads. The Communists succeeded in capturing several district towns and in blocking the north-south coastal road, coming close to controlling the entire province. USAF B-52 and tactical strikes helped stem the drive short of Qui Nhon and Highway 19, and supported the South Vietnamese counteroffensive on the ground begun in July.

American advisors watched closely the performance of VNAF tactical units during the highlands campaign, seeing this as an ultimate test of past training programs. Van Brussel was most pleased with the work of the Vietnamese A-37's. Sortie-for-sortie, the A-37 crews destroyed more Communist tanks than did the Americans—in part reflecting the superior stability and turning capability of the A-37, and its ability to operate under adverse weather. One VNAF pilot was recognized for destroying five tanks and damaging several others at Kontum. Van Brussel was less enthusiastic in assessing the Pleiku-based A-1's. These older, slower airplanes had taken numerous "hits" during the battle, particularly at the low altitudes made necessary by the cloud cover. Nine A-1's were lost to enemy action in the battle for Kontum. Unlike the A-37 crewmen, the A-1 pilots were qualified only for daytime, visual attacks. VNAF FAC's worked in airspace shared with the Americans, and some of the VNAF controllers gained the skill and authority needed to direct USAF strikes.

The demands of the campaign also highlighted past weaknesses in coordination between VNAF and Vietnamese Army units. Necessity became in this case a virtue, strengthening the role of air liaison officers with Army units and bringing new, streamlined methods into acceptance. Several VNAF units in other regions shifted detachments to Pleiku and Phu Cat, putting into effect past mobility planning.

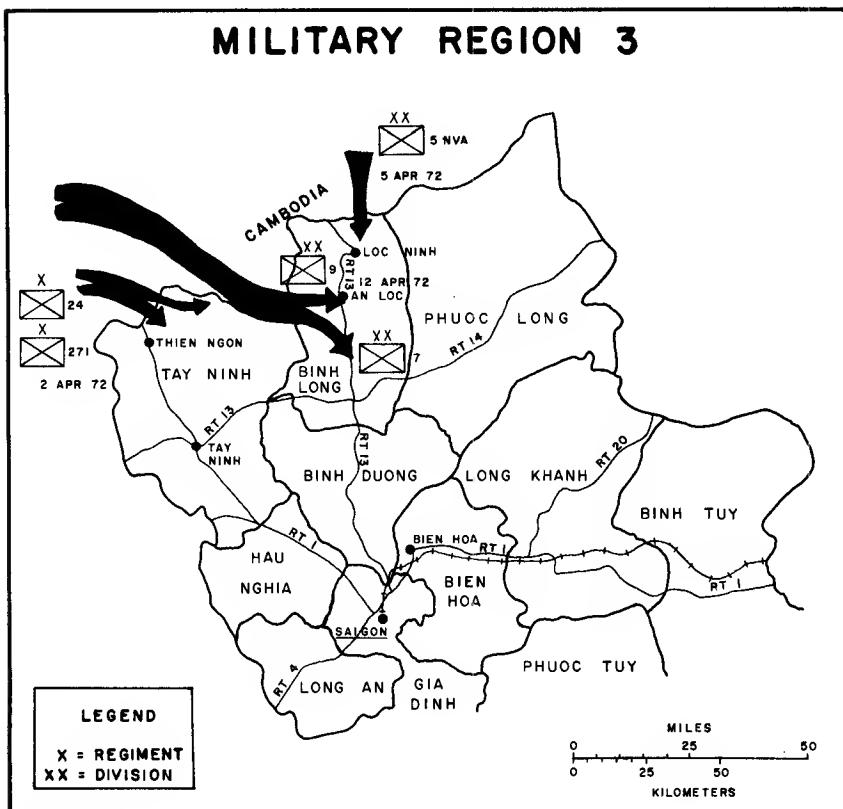
As the South Vietnamese continued to expand their areas of control

in the highlands through late summer, contacts with the enemy became less frequent and less intense. The fact became apparent that the North Vietnamese were not merely avoiding battle actions but were, in fact, withdrawing from the region. The areas lost in the highlands and in Binh Dinh were regained, and the North Vietnamese could show little other than the heavy losses in men and equipment.

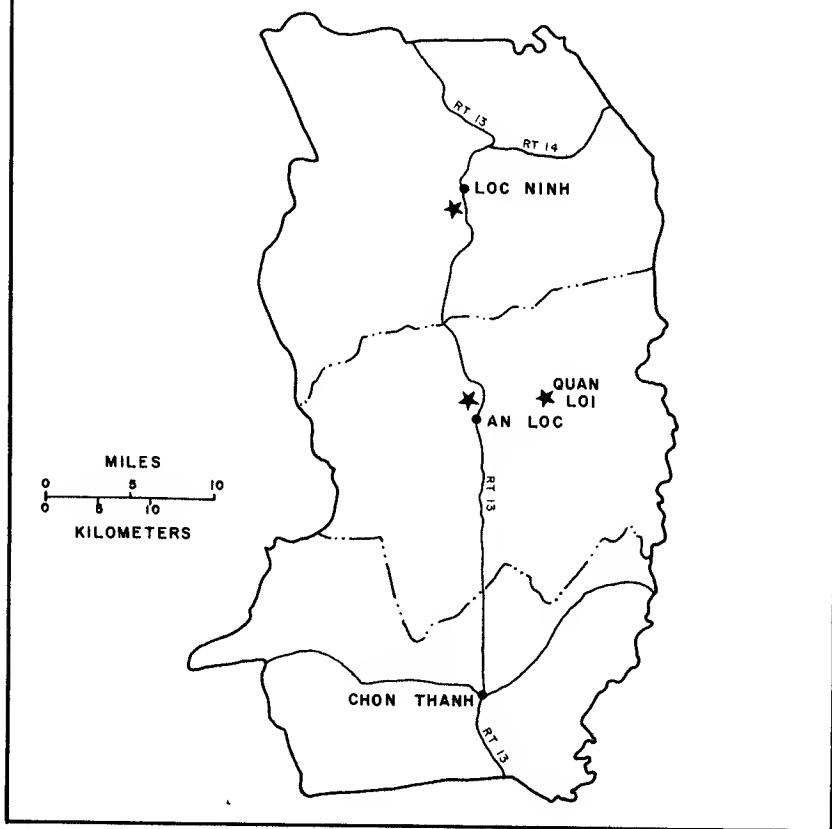
South Vietnamese ground forces in the highlands, heavily supported by U.S. and VNAF airpower, had unmistakably defeated the invasion. The magnitude of the tactical fighter effort in Military Region II was only slightly below that in Military Region I; B-52 sorties in the region peaked at nearly 1,000 during the month of May, exceeding the effort in the northern provinces. Staff officers at PACAF examined the role of airpower in supporting the government's ground forces. The group concluded that the effect of air on the daily ground situation was significant, and that the ability of the enemy to gain additional territory had been reduced in proportion to the increase of tactical air, gunship, and B-52 sorties.

Chapter V: The Battle for Military Region III

Sixty miles north of Saigon, at the juncture of Tay Ninh and Binh Long provinces, the Cambodian border probes deeply into South Vietnam. The region's forested, rubber-producing country gave cover to Communist forces infiltrating from Cambodia, and made it relatively easy for the Communists to concentrate against towns and military positions. Focal points for control of Binh Long were the provincial capital, An Loc, and the town of Loc Ninh, scene of heavy fighting in



BINH LONG PROVINCE



AUL/LC

1967 and one of the jump-off points for the Allied incursion into Cambodia in 1970. Airfields at Loc Ninh and Quan Loi (four miles east of An Loc) were suitable for landings by C-130 aircraft. Highway 13 split the province, extending north-south from the Cambodian border to Saigon. A Communist victory in Binh Long could thus lead to a fast advance along Highway 13 against Saigon itself.

First Days

The Communist offensive in Military Region III began at 0530 hours on 2 April, with an attack on Fire Support Base Lac Long, located in northern Tay Ninh province. Six hundred rounds from recoilless rifles and rockets preceded the ground attack. The defenders repulsed the attack and inflicted heavy losses, but enemy pressure continued through

the next two nights. After midnight on 4 April, the attacks became more severe, led by enemy armor. VNAF fighter-bombers engaged the armor and destroyed two tanks, but to little avail. The defenders withdrew south to take up new positions in defense of the city of Tay Ninh.

Simultaneous with the battle for Lac Long, the Communists attacked other posts in northern Tay Ninh, and on 5 April inflicted heavy casualties on a South Vietnamese battalion just north of Tay Ninh city. These events prompted the South Vietnamese to withdraw from most of the province, forming defensive positions around the provincial capital. The pathway was now clear for two Communist divisions to move against Binh Long, travelling under the jungle canopy with relative freedom and without detection.

A third formation—the 5th Viet Cong Division—had already infiltrated into Binh Long from the region of Cambodia directly north. At 0530 hours on 5 April, the 5th launched its attack on Loc Ninh, employing two infantry regiments supported by artillery, rocket and mortar fire, and some 25 tanks. Attacks from the southwest, west and northwest soon isolated the defenders into two small compounds at either end of the town. All available air assets were thrown into the battle—USAF A-37's from 8th Special Operations Squadron at Bien Hoa AB, naval tactical air from the aircraft carrier USS Constellation, VNAF F-5's and A-1's, USAF F-4's and AC-130's from Thailand. Around-the-clock tactical air coverage was maintained over Loc Ninh.

Captain "Zippo" Smith, the U.S. Army advisor on the ground at Loc Ninh, indicated the severity of the situation when he cleared an AC-130 to fire into his own compound on the first night. The volume of airstrikes and the tenacity of the defenders paid off, because both compounds were still in friendly hands the next morning. By noon of the 6th, three major ground assaults had been broken up by tactical air strikes, permitting helicopter insertion of three ARVN companies for reinforcement. The reinforcements helped to relieve the pressure but were not enough to overcome the tide of the Communist attack.

Pressure mounted through the night of 6-7 April, with human wave attacks on both Loc Ninh compounds. Anti-personnel cluster bomb units (CBU's)¹ and firebombs were used against enemy troops in open areas, while AC-130 Spectre gunships brought fire on attackers close to the compound. The south compound with its American advisors was overrun in the early morning of 7 April. The northern compound held out for the rest of the day, but by 1830 it too had fallen, and the defenders fled into the nearby jungle to begin working their way to An Loc.

¹ Cluster Bomb Unit—a compact group of small fragmentation bombs enclosed in a cannister. When the cannister is released from the aircraft, the bombs are scattered over a small area and explode on impact.

Continuous air cover, particularly from the AC-130 Spectres, protected the Loc Ninh defenders as they evaded south toward An Loc. In one instance, the Spectres for several hours maintained a ring of fire around a group of 15 wounded troops, until they were evacuated by U.S. Army helicopters. Numerous sorties were also applied against Communist blocking positions along Highway 13 between Loc Ninh and An Loc. Approximately 700 members of the Loc Ninh garrison succeeded in reaching An Loc.

Simultaneously, the Communists brought heavy pressure on the Quan Loi airfield east of An Loc. Heavy ground attacks began in early evening, 7 April, the assaulting forces using tear and nausea (cns) gas. Later that night the defenders received orders to destroy their equipment and escape to An Loc. The loss of Quan Loi was significant—the airfield had been a valuable base supporting local helicopter operations, and its high ground gave the enemy good shelling positions against An Loc. This event, coupled with the action of 7th North Vietnamese Division in blocking Highway 13 south of An Loc, underlined the growing peril of An Loc itself.

Lieutenant General Nguyen Van Minh, commanding the South Vietnamese III Corps, made the decision to hold An Loc, reinforcing as necessary to stop the enemy advance southward. Defending An Loc was 5th Infantry Division, now reinforced with the survivors from Loc Ninh and Quan Loi. A two-battalion Ranger group entered on 7 April, and U.S. Army helicopters lifted in two South Vietnamese infantry battalions on 10-11 April. The 1st Airborne Brigade—President Thieu's Palace Guard—moved north overland on Highway 13, completing the movement to hills adjacent to An Loc on 13-14 April by U.S. helicopters. The resulting force of about five regiments at An Loc would remain under almost continuous heavy shelling and periodic ground attack for well over two months. The absence of artillery support and surface resupply would demand all possible support from the air, both for firepower and resupply.

For several days the 9th Viet Cong Division conducted a series of probes against An Loc, while the 7th North Vietnamese Division strengthened blocking positions along Highway 13. Increasing amounts of armor, including Soviet-made T-54 tanks, were sighted in the An Loc area. By 12 April the enemy forces were in position and ready to attack.

Heavy artillery, mortar, and rocket fire rained upon An Loc throughout the daylight hours of 12 April and on through the night. By dawn, ammunition and fuel storage areas were on fire. After dawn on 13 April, a coordinated tank and infantry attack began from the northeast. Six T-54 tanks moved down a main north-south street toward the South Vietnamese Army command post in the southern section of the city. Their hatches were open as if they expected no opposition. South Vietnamese troops immobilized the lead tank with an M72 Light Anti-tank Weapon. At the same time, the South Vietnamese commander

cleared three U.S. Army Cobra helicopters from the 3rd Brigade, 1st Cavalry Division, to engage the tanks. The Cobras were armed with newly developed high explosive anti-tank warheads for their 2.75-inch rockets. The combination was highly effective and four of the six tanks were either destroyed or immobilized by the attacking Cobras. The first attack of the day was blunted.

The next blows came from the northwest at 1015, again a combined tank and infantry effort. By 1330, the enemy controlled the airfield to the northeast of the town and the northern half of the city; however, intense airstrikes slowed the momentum of the attack and prevented the defenses from being overrun. By now, B-52 strikes were being diverted to close tactical support of An Loc. One enemy attack on 13 April dissolved when the attacking force was caught in a pre-planned B-52 strike area. Three or four tanks were destroyed and an estimated 100 enemy soldiers were killed. The senior American advisor in the region, a U.S. Army Major General, told General Abrams that the air support, especially the B-52's, had been decisive. "The massive air support of all types," he reported, "tipped the scales in our favor yesterday."

Attacks the next day, 4 April, consisted of sporadic artillery and mortar fire, while the enemy regrouped. This breather permitted refinement of command and control procedures. VNAF and USAF FAC's were assigned separate sectors in the battle region. Since American aircraft were predominant, three USAF FAC's were assigned to that sector which included An Loc. All strikes were still under the nominal control of the Vietnamese 5th Division commander; however, two U.S. Army advisors, one in the northern and one in the southern sectors, worked with the USAF FAC's, overhead in O-2s. Above the two sector FAC's, a high FAC acted as an overall managing agency. The "King FAC" received the strike allocations directly from the Military Region III Direct Air Support Center at Bien Hoa AB, and then handed the strike sorties over to the sector FAC's as the situation required. This simple system alleviated the air congestion over An Loc, and permitted strikes to be applied in direct response to changes in the ground battle.

The second major assault against An Loc took place on 15 April. Once again, heavy fire from 155-mm. howitzers and 122-mm. rockets struck the battered city; the barrage opened at 0430 hours, announcing the imminent attack. At 0600 hours, enemy armor and infantry attacked from the north. USAF A-37 crews standing alert at Bien Hoa were scrambled and, by mid-morning all available aircraft were in action over An Loc. A second attack launched at 1000 hours successfully penetrated the city, reaching to the wire which directly surrounded the compound defenses. Despite intense .51-caliber,, 23-mm. and 37-mm.

² 1st Cavalry Division, stationed about Bien Hoa, was the last U.S. Army division remaining in Vietnam.



Two B-52 bombers releasing their devastating loads over Southeast Asia.



Bombs dropped by B-52s impacting in South Vietnam.



Results of a B-52 raid in South Vietnam.



An A-37 showing the various types of ordnance it is capable of carrying.

anti-aircraft fire (occasional 57-mm. AAA was also reported), fighter-bombers and gunships provided close air support to the defenders throughout the day and night. At 1400 hours, ten more enemy tanks moved into the town, only to be eliminated by tactical air and ground forces. By 1700 hours, after further heavy air strikes in the west and northwest sectors, the enemy attacks lost momentum.

The costly attack of 15 April climaxed the first phase of the battle for An Loc—the period of intensive and direct attacks by combined ground forces. The Communist 9th Division had failed in its objective of taking An Loc in five days, and had experienced firsthand the effectiveness of the air weapon against massed ground forces. A captured letter, handwritten by the political commissar of the 9th Division to his higher headquarters, reported that the Allied tactical air and B-52 strikes had been unbelievably devastating.

In the first two and one-half weeks of the battle, over 2,500 air strikes had been flown in Military Region III, primarily around Loc Ninh and An Loc. Further expansion of the tactical air effort became possible, upon use of Bien Hoa as a turnaround base for F-4's based in Thailand, starting 15 April. On some days, the fighters made two turns at Bien Hoa before returning to Thailand, allowing three sorties over target during a mission day. The Bien Hoa effort was quickly expanded, reaching an average of 55 turnarounds daily during late April and May. Besides

increasing the number of strikes, the Bien Hoa arrangement freed the KC-135 tankers otherwise needed for refueling round trip attack missions out of Thailand.

In the weeks that followed, the confrontation became one of siege, strangulation, and starvation. The 9th Viet Cong Division remained in strength about An Loc, firing from 1,200 to 2,000 mortar and artillery rounds daily. Communist troops built reinforced bunkers and firing positions, and deployed more and more anti-aircraft weaponry. The 7th Division continued to hold Highway 13 closed, blocking a South Vietnamese overland relief force well south of An Loc. Allied airpower continued to pound Communist positions and logistics areas at An Loc around-the-clock, while B-52's, tactical aircraft, and South Vietnamese artillery hit the blocking positions on Highway 13.

Conditions in the rubble of An Loc became abysmal. South Vietnamese officers appeared reluctant or unable to enforce discipline. One American advisor saw hospital patients missing limbs struggling to gather food for themselves, receiving further wounds from shell fire during their effort. One U.S. Army advisor arriving in An Loc on 1 May, reported that ammunition stocks were "highly critical," and that the food situation was "very dire." People were hungry and in some cases starving. With surface resupply for the 20,000 military and civilians in An Loc at a stand-still, the campaign became the supreme challenge of the war for the USAF tactical airlifters.

Air Transport at An Loc

The closure of the airfields at An Loc and Quan Loi in early April ended any possibility of airlanded resupply. U.S. Army and VNAF Chinook helicopters undertook deliveries to a landing zone inside An Loc city, making some 42 sorties until destruction of a VNAF aircraft and damage to three American planes by enemy shells forced cessation on 12 April. Occasional VNAF efforts at resupply by helicopter remained almost wholly ineffective until late in the siege because of enemy anti-aircraft fire and shellings. Airdrops by VNAF transports began on 12 April, primarily by daylight in the face of furious ground fire. Attempts to drop from high altitude proved grossly inaccurate. Two C-123's were destroyed, on 15 and 19 April respectively, ending VNAF daytime efforts. Colonel Walter J. Ford, a USAF advisor with the VNAF airlifters, gave great credit to the VNAF crews for persisting to that point, despite the hopelessness of their efforts.

Several days before, on 14 April, Headquarters MACV directed USAF C-130 participation in the An Loc resupply mission. Planning for the missions began immediately. Five daylight container delivery system (CDS) drops were initially planned for the C-130's—two on April 15th and 16th, and one on the 18th.



ARVN soldiers rigging loads for airdrop at An Loc.

The usual CDS method used a highspeed low-level route (250 knots and below 100 feet) to an initial point. The aircraft then climbed to 600 feet above the ground and set up for the drop which required slowing to 130 knots and opening the cargo door and ramp. This configuration was maintained until the supplies were dropped over the drop zone. The cargo door and ramp were then closed while the aircraft descended to treetop height and accelerated for its escape from the area. Sixteen tons of supplies in 16 individual containers could be delivered in one pass. Severe problems were encountered on these first drops. First, the drop zone coordinates given to the airlift planners and briefed to the aircrews, were incorrect, and several drops were unrecoverable because they were outside the defended perimeter. Second, the low-altitude, low-speed pass over the drop zone was completely impractical given the heavy AAA at An Loc. The first four C-130 drop missions received moderate to heavy battle damage while the fifth mission was shot down after making the drop on 18 April. This crew miraculously survived the crash landing and was immediately recovered by Army helicopters.

Spare 617's airdrop mission on 15 April exemplified the hazards facing the C-130 crews on the daylight low level drop mission. Loaded with twenty-seven thousand pounds of 155-mm. howitzer and 81-mm. mortar ammunition, Spare 617 took off from Tan Son Nhut AB just after sunup and headed for An Loc. Captain Bill Caldwell was the aircraft commander, Lt John Hering the copilot, and Lt Richard A. Lentz



The crew walked away from this crash landing after hit by AAA over An Loc.

the navigator. TSgt Charlie Shaub and Sgt Dave McAleece were the loadmasters and TSgt Jon Sanders was the flight engineer.

Arriving at An Loc, Spare 617 contacted a FAC who gave them a run-in heading which hopefully would keep them away from heavy AAA and ground fire areas. They began their run-in for drop, climbed to 600 feet and slowed to 130 knots. Two miles and one minute out from the drop zone, there was no ground fire, then about 30 seconds before the drop, "All hell broke loose!" The C-130 began taking hits in the cargo compartment and some of the ammunition began to smolder. At the same time, ground fire hit the cockpit, shattering three side windows, wounding the copilot and killing the flight engineer. Hot air ducts in the cargo compartment ruptured, spilling 700-degree Centigrade air into the cargo compartment. The load was ready for drop. Both pilots pushed the cargo button but the load wouldn't go because of damage to the wiring. Then the intercom failed between the cockpit and the loadmasters. TSgt Shaub realized what was happening and cut the cargo free. Only seconds after leaving the aircraft, two of the ammunition pallets exploded.

Caldwell turned away from An Loc to try to get back to Tan Son Nhut and safety. Fire broke out in the left wheel-well area of the cargo compartment. Shaub grabbed a fire extinguisher which was so hot that it badly burned his hands. Ignoring his pain and injured hands, he put the fire out, saving the aircraft and crew for the second time. By now, both engines on the left side of the aircraft had been shut down

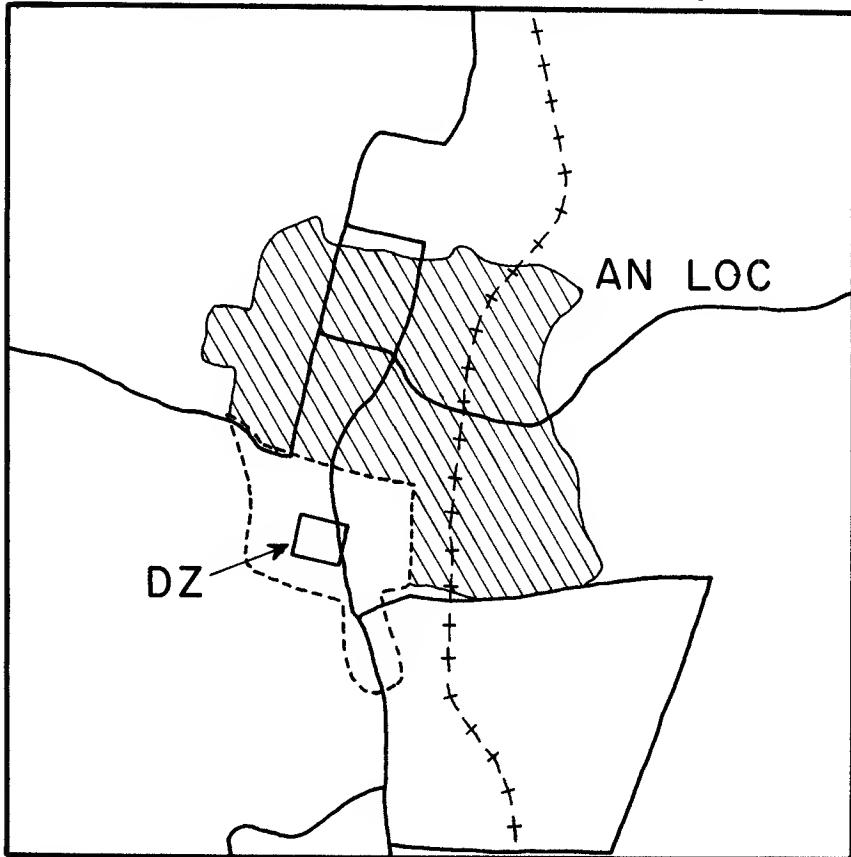


Sgt Dave McAleece (left) and TSgt Charles Shaub (right) loadmasters on the An Loc airdrop that won Shaub the Air Force Cross.

because of fire and battle damage. This meant that the landing gear would have to be cranked down manually for landing because the main hydraulic system was powered by the left hand engines. Under TSgt Shaub's direction, Sgt McAleece cranked the gear down while in the landing pattern over Tan Son Nhut. Though power was lost on the third engine while in the pattern, Capt Caldwell safely landed the crippled C-130. For their heroic actions on that mission, Capt Caldwell and TSgt Charlie Shaub were awarded the Air Force Cross. TSgt Shaub also received the William H. Pitsenbarger Heroism Award, only the third airman to receive this award from the Air Force Sergeants' Association.

CDS drops were then cancelled and an alternate system was tried—Ground Radar Aerial Delivery System (GRADS). This system involved airdrops from six to nine thousand feet, using ground radar to position the drop C-130. Upon exiting the aircraft, the parachutes on the loads descended in a partially inflated condition. A timing device operated to permit full blossoming of the chute approximately 500–800 feet above the ground. Results of the GRADS airdrops were unsatisfactory because of numerous and varied parachute malfunctions. On 23 April, the airdrop effort returned to daylight low-level CDS. Daylight CDS drops continued for three more days with good success until 26 April when a second C-130 was shot down.

SOCER FIELD DROP ZONE AN LOC



Daylight CDS drops were again terminated in favor of night CDS drops. However, while aircraft survivability improved, reliability of delivery remained unsatisfactory. The drop zone at An Loc was a soccer field about 200 meters square. This was much smaller than the dimensions (550 yards in length) prescribed in normal training and operations. The makeshift gasoline flare pots used at An Loc to make the desired impact point proved almost impossible to pick out from other fires in the city. Lights could not be placed at the extremities of the drop zone (as prescribed) because of the battle situation. Finally, the troops on the ground had trouble locating and recovering the loads in darkness. The night drops were nevertheless continued, until almost 1,000 tons of supplies were released. Results were completely unacceptable, however, in the view of the senior U.S. Army advisor on the ground at An Loc, Colonel William Miller. The defenders actually recovered only about 300 tons. Seven drops were scheduled on the night of 3 May. The first load landed 700 meters short. Just before midnight, the second C-130 received hits from ground

fire and crashed—this was the third C-130 and second crew lost over An Loc. No more runs were attempted that night, and soon afterwards a decision was made to again cease low-level deliveries, this time permanently. The willingness of the C-130 crewmen to persist under these conditions was never in question. Only the highest qualified crews were scheduled for the An Loc drops, so that the same individuals were exposed to the fire, time after time. C-130 loadmasters³ used their inventiveness to gain a little protection inside the unarmored cargo compartment. Major Ed Brya, who was a C-130 flight examiner and the briefing officer for the An Loc missions, described their method:

Let me tell you about the way the loadmaster goes to war. Once his airdrop checks are done, he gets his armored flak vest on, takes a flak vest apart and puts it over his legs, lays tie-down chains on the cargo compartment floor, puts the garbage can on the chains, gets in and from that position activates the static line retriever for the drop.

During the period of the night drops, USAF and U.S. Army troubleshooters worked at Tan Son Nhut to improve the hardware and techniques for high-altitude parachute rigging. After several successful test drops near Saigon, GRADS drops resumed at An Loc on 4 May. During the next six days, 492 bundles were dropped with a 94 percent recovery rate—a vast improvement over past results. Drop altitude for the GRADS releases was well above 6,000 feet, practically eliminating the ground fire threat.

The initiation of the successful GRADS airdrops became a turning point in the defense of An Loc. High-altitude drops through the months of May and June totalled 238; of the 3,100 tons released, more than 90 percent were recovered by the defenders. Although daily deliveries were but half the original resupply objective (2000 tons per day), the drops provided more than the minimum sustenance needed for continued resistance. The resumption of helicopter medical evacuation flights in early May further strengthened morale on the ground. In combination with the resilience of the defenders, and the responsiveness of the air strike forces, the successful air resupply of An Loc became a decisive factor determining the Allied victory.

The Fixed-Wing Gunships at An Loc

Prior to the Easter Offensive, the Thai-based AC-119's and AC-130's worked almost exclusively against enemy lines of communication in Laos and Cambodia. USAF gunship crews became expert in using their infrared and low-light television equipment to detect and destroy Com-

³ The loadmaster was the fifth member of the C-130 crew—an enlisted specialist in cargo rigging and handling. His duties in the unarmored cargo compartment left little protection against enemy fire.

munist truck traffic. The infrared sensors could detect the heat from truck engines and tailpipes, and could discriminate the body heat of personnel in open areas. Gunship crews learned to cope with heavy anti-aircraft and missile opposition, as the Communists deployed more and more firepower to defend their lines of communication. Because nearly all missions were outside South Vietnam, Allied ground forces and FAC's in that country lacked experience in working with the USAF gunships and were unfamiliar with such weaponry as the 105-mm. cannon recently installed in the Pave Aegis AC-130's.

The emergency at An Loc dictated diversion of the gunship effort away from the trails. On 15 April, six AC-119 Stingers moved from Nakhon Phanom, Thailand to Bien Hoa, establishing a forward operating location for support of the battle at An Loc. The AC-130's also shifted effort to An Loc, but continued to operate from Ubon, landing once or twice at Tan Son Nhut during each mission day to replenish fuel and ammunition. The arrangement greatly lengthened a crew's time over target at An Loc. Sometimes, crews remained on duty 24 hours or more without rest, fighting fatigue but appreciating the urgency of the situation on the ground. At least one gunship remained on station over An Loc around-the-clock. Besides an important night detection and strike capability, the gunships could deliver ordnance far more accurately than the fighter-bombers.

The earliest AC-130 missions over Loc Ninh and An Loc were disappointing. FAC's were generally inclined to give priority to fighter-bombers, and often held off gunships from targets to permit strikes by the jets. Lt Col George F. Hall, a Pave Aegis Fire Control Officer, described his crew's disappointment on their first mission to An Loc. Over the city, the crew received a target assignment—an old French mansion south of the town. Confident in the precision of their 105, the crew promised to hit a particular upstairs window, to the disbelief of the ground party and the FAC's. Rolling in for the first attack, the crew was instead told to pull off to make way for an F-4 strike. Again and again, the gunship crew prepared to fire, only to be called off. After two hours, Wall and his disgusted crew headed back for Ubon, having fired not a single shot.

Hall's combat tour was interrupted by two weeks of emergency leave. Afterwards he returned to An Loc with his now-veteran crewmates. Hall quickly realized that in the interval, the men on the ground at An Loc had learned something of the effectiveness of the AC-130. No longer were there delays in applying the Spectre's firepower. From a bunker in the rubble, an American voice asked for a single 40-mm. round at an easily-seen fountain; verifying the burst, the voice next called for a second round at an intersection two blocks east. Finally, the voice prescribed a particular house and corner. Hall's crew thereupon destroyed the building with 20-mm., 40-mm., and 105-mm. fire. The crew expressed concern during the firing, after learning that



An AC-119 "Stringer" Gunship.



An AC-130E "Spectre" Gunship. Note the 105mm Howitzer cannon protruding from the rear part of the aircraft.

friendly forces were directly across the street. The voice below assured them that all was going well, excitedly calling for the crew to "keep it coming."



Lt Col Stephen Opitz

This was only one of several methods used to exploit the remarkable precision of the gunships in the street fighting below. Most techniques depended on direct radio communications with the men on the ground. Lt Col Stephen Opitz related how his crew pinpointed the enemy on one night mission over An Loc. The AC-130 pilot called for the friendlies on the ground to identify their position with green flares. Green flares promptly appeared from several quadrants of An Loc, indicating the enemy was listening in. The pilot then called for red flares. After several red flares appeared, the American controller on the ground called out—"I've got no red flares, hit'em all." Opitz and crew complied, using 20-mm. with effect.

Vital for the successful employment of the gunships were the several U.S. Army advisors on the ground at An Loc, who day after day directed the AC-119 Stingers and AC-130 Spectres to targets by voice radio. Crewmen learned the voice of Zippo Smith at Loc Ninh, and invited him to attend one of the monthly parties at Ubon. All were relieved by the news that Smith had successfully exfiltrated after the Loc Ninh fall. AC-130 crewmen lavishly praised one Army Colonel at An Loc who stayed on the air for weeks and seemed especially skilled in directing the gunships to rewarding targets. The use of street and house directions for precision attacks became standard procedure, in nearly all cases either killing the enemy troops or forcing them from cover. AC-



Shown in this low level photo are two Communist 57mm AAA guns. The shadow belongs to an RF-101 reconnaissance aircraft.



This 37 mm AAA piece will no longer be firing at U.S. aircraft. It was captured by allied ground forces and taken to Nakon Phanom AB, Thailand.

130 crewmen arriving at An Loc knew to expect the query, whether or not they carried the 105 cannon—the "big gun."

Since the 105-mm. could penetrate and stop tanks, those gunship crews with only the 40-mm. weapon were often frustrated by their ineffectiveness against enemy armor. Opitz on one occasion watched as his ship's fire splashed against and exploded on the sides of a Communist T-54. The enemy tank moved steadily closer to the friendly position, the ears of its crewmen no doubt ringing but otherwise unharmed. Finally, the friendly radio transmission ended, indicating that the position had been smashed and overrun. With heavy hearts, Opitz and his drained crewmates returned to base.

Although the 57-mm. fire known in Laos was not as severe at An Loc, the gunship crewmen detested equally the concentrations of 37-mm. fire. The 37-mm. had higher projectile velocity, which reduced the effectiveness of evasive action, while its greater rate of fire gave substantial weight in barrage. On 2 May, Stinger 41 took multiple 37-mm. hits in the right wing which blew off the right jet engine and disabled the right reciprocating engine. The aircraft commander headed his crippled plane to the southwest away from An Loc; seven of the ten crewmembers bailed out before Stinger 41 crashed. A FAC in his O-2 followed the AC-119 and plotted on his map the location of each crewmember as he hit the ground. Two HH-53 rescue helicopters scrambled from Tan Son Nhut AB and picked up six of the seven crewmen while a U.S. Army UH-1 helicopter picked up the seventh survivor. Because of the vulnerability of the AC-119's to AAA fire, the Stingers' daylight missions were terminated.

The SA-7 became the greatest concern for the gunship crews, although alertness, evasive action, and the use of decoy flares held down the frequency of hits. Crews reported as many as six or seven SA-7 firings on certain missions. High threat sectors were identified and avoided when possible. One AC-130 was hit and severely damaged by a SAM on 12 May, after sighting four other launchings the same day. The crew barely managed an emergency landing at Tan Son Nhut. The only sure defense against the SA-7, however, was in altitude. The higher altitudes meant some loss in AC-130 weapon effectiveness—the 20-mm. became almost useless because of loss of projectile velocity at this distance, while the accuracy of the 40- and 105-mm. appeared only slightly affected. The 7.62-mm. machine guns of the AC-119's were ineffective above 4,500 feet, so the Stingers moved from An Loc support to tasks elsewhere.

The gunships were helpful to the C-130 transports engaged in night drops, providing ballistic wind information from gunnery computers, helping identify the drop zone, and affording fire support. The external searchlight sometimes used to illuminate targets for fighter attack was employed on several occasions to spotlight the drop zone as the transport approached. The method was successful, but was not regu-

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ARVN defenders like this one at An Loc accounted for many of the NVN tanks with M72 LAW missiles.

one location, one pilot reported "four or five 37-mm., and the same number of 23-mm. weapons, all surrounded by .51-caliber weapons." By late afternoon on 11 May, a VNAF A-1, and A-37, a Cobra, and two O-2 FAC aircraft had been shot down.

F-4 crews of the 49th Tactical Fighter Wing—just arrived at Takhli from New Mexico—flew their first combat missions at An Loc. At 1200 hours on 11 May, the day after reaching Thailand, two three-ship flights departed Takhli to hit the Communist forces at An Loc. They delivered their ordnance, landed at Bien Hoa to rearm and refuel, hit An Loc again, and then headed back to Takhli. In the next nine days, the 49th flew 269 combat missions using the turnaround facilities at Bien Hoa. Most of the 49th aircrews had previously served SEA combat tours. Their cockpit skills remained strong—during one troops-in-contact engagement on 12 May, a flight of four F-4's put 22 of 28 firebombs on a small enemy compound. A ground sweep two hours later found 150 Communists dead in the area.

The Communists pressed their attacks on 12 May, but again the concerted team efforts of ground and air forces proved effective. The enemy established two company-sized penetrations into the defensive perimeter, but were unable to link or otherwise exploit them. Most of the 40 tanks in action on the 11th were by now destroyed. Bad weather on the evening of the 12th halted fighter-bomber support until nearly midnight. The Communists attacked during the interval, com-

bining direct tank fire from the north and east with infantry assaults from the east and south. The weather proved no hindrance to the B-52's—in the midst of the attack, six scheduled B-52 strikes apparently saved the day, destroying two tanks and an enemy ammunition dump. The Communist direct supporting fire ceased immediately. When the weather improved during the night, fighter and AC-130 strikes on enemy troop concentrations resumed until the weather again closed, about 0230 13 May. The crisis had already passed.

The heavy attacks of 11 and 12 May coincided with the start of SA-7 firings about An Loc. The two FAC aircraft lost on the 11th were possible SAM victims. SA-7's hit an AC-130 on the 12th and brought down an O-2 two days later. All slow-movers were thereby forced to stay at higher altitudes, and helicopters were banned from the area. B-52, AC-130, and fast-mover support was only marginally affected, except that FAC's were handicapped in working from 6,000 feet or higher.

Enemy shelling of An Loc remained heavy for the next three days, although decreasing somewhat each day. Ground attacks also weakened in size, intensity, and frequency. South Vietnamese infantry forces drawn from Military Region IV moved by helicopter to replace the airborne brigade directly south of An Loc. The airborne returned to strategic reserve in Saigon and eventual move to the northern provinces. The Communists appeared to be shifting forces toward the relief column, still moving slowly up Highway 13. B-52 and tactical air sorties shifted accordingly, increasing support for the relief column, while the C-130's continued airdrop resupply of both An Loc and the force immediately south. Direct attacks and shelling at An Loc continued to decline through late May and June.

Additional air resources for Military Region III came on 17 May with the arrival of Marine Air Group-12 at Bien Hoa, with 32 A-4E's. Less than ten percent of MAG-12 pilots had any combat experience, but a unique method of indoctrinating them was devised. Ordinarily, the USAF pilots of 8th Special Operations Squadron flew their A-37's with the right seat unoccupied. Each newly-arrived Marine pilot flew one or more strike missions in the right seat to observe the conduct of these sorties by an experienced pilot. Subsequently, flights were mixed, with one USAF A-37 as lead and one Marine A-4 on the wing. This quick orientation of the MAG-12 pilots enabled early and effective use of the Marines' close air support capability. In their first 13 days at Bien Hoa, the Marines flew 441 attack sorties. In June they tripled that amount, flying over 1,300 sorties in Military Regions III and IV.

Two pilots of MAG-12, Capt Vince Massimini and Capt Bill Peters, flew a mission on 11 June with unique results. Taking off from Bien Hoa AB in the A-4E's armed with CBU's, Zuni rockets, and 20-mm. cannons, they contacted their FAC, Sundog 04, who told them to hurry because he had two enemy tanks spotted in an open clearing. Although



Lt James W. Beaubien was credited with saving the lives of the men of the 33rd Regiment after they were ambushed by the enemy.

He called III DASC to launch A-37's which were on alert, and then descended through the weather, breaking under the clouds about 2,000 CBU's were not designed for use against tanks, the Marine pilots expended them on the first pass to eliminate their adverse effect on the A-4E's maneuvering ability. Coming around on the next pass to fire rockets, Massimini and Peters were surprised to see the lead tank burning aft of the turret. Apparently they had hit the gasoline drum the tanks carried in the open. A rocket pass disabled the second tank with a direct hit. The Sundog crew then fired their 20-mm. ordnance in strafing runs after which they returned to Bien Hoa, leaving the two tanks in flames.

The relief column continued to move slowly along Highway 13, held back by enemy resistance and poor weather conditions. Lt Col Edward J. Stein, Senior Advisor to the 33rd Regiment, was with the relief column. On 6 June, the regimental commander, his 12-man staff, and Stein were ambushed and cut off. Pinned down by heavy mortar and small-arms fire, the group could not establish radio contact with any other unit. Stein fortunately contacted Lt James W. Beaubien overhead, a FAC from the 21st Tactical Air Support Squadron.⁴ Beaubien was flying at 8,000 feet altitude between solid cloud decks.

⁴ The 21st TASS, based at Tan Son Nhut AB and commanded by Lt Col Don Hogg, was responsible for most of the FAC's in Military Regions II, III, and IV.



An enemy T-54 tank lies dead in An Loc, destroyed by fire from a U.S. Army AH-1G "Cobra" gunship.

feet above the ground. He then flew to Stein's position and, upon the arrival of the A-37's, began marking the enemy targets for air strikes. A hail of small arms and .51-caliber anti-aircraft fire flooded the area within which Beaubien and the A-37's were working. Their problem was severely compounded by the low clouds which limited normal delivery altitudes and maneuvers. The FAC-fighter teamwork nevertheless continued until Stein and the regimental staff could move to safer positions out of the ambush area. Stein later stated, "By his gallant and conspicuous action, 1/Lt Beaubien saved the lives of most, if not all, the key officers and men of the 33d Regiment. He inflicted severe losses to enemy men and equipment, and allowed friendly units time to regroup and move forward to positions from which they could control the terrain and expand the territory held by friendly forces." Lt Beaubien was awarded the Distinguished Flying Cross for his heroism and gallantry in action.

The B-52's Assessed

The B-52 force expansion and diversion of effort from Laos and Cambodia, allowed expansion of the B-52 strike effort in South Vietnam, raised from 700 sorties in March to 1,600 in April and 2,200 in May. Each mission usually involved a three-ship "cell," bombing in close trail to saturate a target "box," roughly one kilometer wide and three kilometers long. Approximately 60 fighter-bombers would be required to achieve similar saturation. Bombing from above 30,000 feet, the B-52's could be neither seen nor heard by the enemy. Brigadier General John R. McGiffert, USA, serving in spring 1972 as deputy to Hollingsworth, described the B-52 force as "the most effective weapon we have been able to muster," The threat of heavy bomber strikes "forces the enemy to break up his ground elements into small units and makes it difficult to mass forces for an attack. If he does mass his forces, he takes terrible casualties." The massive firepower of the B-52's thus proved crucial at An Loc, breaking the main enemy assaults of April and May.

On 12 April, McGiffert talked with Hollingsworth under the rubber trees at Lai Khe, 30 miles south of An Loc. Both officers had been flying over An Loc, and were fully informed as to the battle situation. The two agreed in laying out a dozen target boxes around the An Loc perimeter, and in adding boxes on a ridge line east of the town. Hollingsworth flew directly from the meeting to MACV headquarters to gain permission for the strikes. The strikes thus conceived became those which destroyed the Communist attacks during the next three critical days.

An unusual planning arrangement set the stage for the mid-May battles. On 9 May, Abrams proposed a change in B-52 usage, where-

by the full strike capacity would be allotted to a single military region for a full day. Hollingsworth agreed, provided his region could receive the first full-day effort. Correctly interpreting the Communist intention to attack on 11 May, Hollingsworth asked for, and received all B-52's for that day. To one American Army Captain at An Loc, "the surprisingly fast B-52 strikes that we received on 11 May were just unbelievable. I couldn't believe that we got so many B-52 strikes so fast." Nearly every strike was placed according to late target information—90 percent were diverted from original targets, often up to one hour before release. Hollingsworth reported at noon on the 11th, that many panicked enemy soldiers were fleeing in a state of disorganization from the areas hit by B-52's. In one case, the 81st Airborne Ranger Group was under heavy pressure from an enemy regiment; a B-52 strike was diverted against this concentration and eliminated the regiment as an effective fighting force. Other units broken by the B-52's were pursued by tactical air and the fire of ground units. The succession of B-52 strikes at An Loc continued to the 14th, meeting the urgency of the moment; the sustained application ended on the 14th, when Hollingsworth reported that the expected heavy assault that morning "was dissuaded by the timely delivery of three B-52's."

After the May attacks, the An Loc defenders gradually expanded their perimeter and began patrol actions outside. Vivid evidence soon emerged of the effectiveness of airpower against massed attackers. Three kilometers south of An Loc, in a B-52 strike area, patrols found 208 enemy dead with their weapons and supplies. Inside An Loc, in sectors held by the Communists on 11 May, patrols found a former Communist command post complex, complete with switchboard, telephone lines, and other equipment. All had been completely destroyed by the AC-130 Spectres, firing 105-mm. cannon.

By 12 June the last of the NVA were driven from the city, and evacuation of the more than 1,000 ARVN wounded began. Two days later 1,650 fresh troops were inserted into An Loc. On 18 June, General Minh, commanding general of Military Region III, declared the seige over. Light enemy forces would remain active in the region for months, but the Communist threat to the city of An Loc had been broken.

Years later, an American officer asked Lt General Tran Van Minh, Chief of the Vietnamese Air Force during its final years, to contrast the successful campaign at An Loc in 1972 with defeats in similar circumstances in 1975. Minh, in reply, concluded that Communist ground forces in 1975 were somewhat stronger, and that Allied air capabilities were much weaker. At An Loc in 1972, the VNAF Chief pointed out, the battle turned on the employment of the B-52's and C-130's. At Phuoc Long and Ban Me Thout in 1975, the VNAF used considerable FAC and fighter forces but simply did not have the massive bombing and airlift capabilities provided by the USAF in 1972.

Chapter VI: The Impact of Airpower

By the timing, nature, and weight of their 1972 Spring Offensive, the North Vietnamese won considerable tactical surprise. Although the Allies found themselves temporarily off-balance, airpower represented a flexible and potent weapon with which to reply. Despite the earlier unit withdrawals, significant American air strength still remained in Thailand and Vietnam, and the old complex of airfields and support facilities remained at hand to permit reintroduction of forces.

Even before the Easter invasions, some USAF B-52 units had returned to the Western Pacific; others started their journeys from State-side bases soon after the first attacks. Similarly, during April and May tactical air forces of Tactical Air Command crossed the Pacific, returning to the combat zone. In the largest single deployment of the war, the 49th Tactical Fighter Wing shifted from the deserts of New Mexico to the semi-tropics of Takhli. Meanwhile, the U.S. Navy moved additional attack carriers into the waters off Vietnam, and the Marines brought A-4 units into Southeast Asia from bases in Japan and Hawaii. The skillful deployments vindicated the past years of preparation—developing the know-how to make fast deployments, arriving in the overseas theater ready to fight.

Giving weight to the North Vietnamese invasion were an estimated 600 tanks, powerful 30-mm. artillery, and large quantities of mechanized equipment, including trucks, self-propelled artillery, AAA, and mobile SAM's. Such heavier weaponry afforded enormous firepower, but also increased the vulnerability of the North Vietnamese to Allied aircraft. Vehicles in column or massed for assault could be readily located and destroyed from the air. Mechanized weapons also consumed quantities of POL, ammunition, and spare parts, requiring a logistics pipeline far beyond that needed to support guerrilla operations in the past. The North Vietnamese lines of communication stretched all the way to Hanoi and Haiphong, acquiring new significance after Easter 1972.

On 8 May 1972, President Nixon announced the start of a comprehensive interdiction effort against North Vietnam. The President laid on three objectives for the combined air and naval campaign: to reduce the flow of supplies into North Vietnam, to destroy existing stockpiles

in the North, and to reduce the flow from North Vietnam south. Operation Linebacker—the air operations over North Vietnam—went on simultaneously with the heavy fighting in the South, the two campaigns competing for air assets. The effects were reciprocal, however—by the end of May, the bombing and air interdiction of the North were limiting the ability of the Communists to continue heavy fighting in the South. Conversely, the heavy expenditures and losses of supplies by the Communists in the South increased the effectiveness of the air interdiction, intensifying shortages and necessitating daylight road movements.

Tactical air support was directly instrumental in each of the three main campaigns within South Vietnam, first blunting, and then breaking the Communist momentum. The raw statistical data given here allows the reader to assess the weight of effort in the military regions as the campaigns proceeded. In appreciating the meaning of the statistics, the reader should keep in mind the enormous destructive power of even a single fighter-bomber sortie, if properly directed on an appropriate target.

Table VI-1. Fixed Wing Strike Sorties in South Vietnam, 1972

	March	April	May	June
USAF Tac Air -----	247	3,032	7,516	5,310
USAF Gunships -----	24	407	491	325
U.S. Navy -----	128	4,683	3,247	2,040
U.S. Marine Corps -----	...	537	1,381	1,937
VNAF Tac Air -----	3,118	4,612	5,276	3,950
VNAF Gunships -----	31	292	310	182
USAF B-52 -----	689	1,608	2,223	2,207
Totals -----	4,237	17,171	18,444	15,951

(Source: USAF Management Summaries)

Table VI-2. Strike Sorties in SVN, April 1972

Servica	MR-1	MR-2	MR-3	MR-4	Total SVN	Percent
USN -----	2,022	1,118	1,378	314	4,832	27.6
USAF -----	2,510	1,397	2,825	377	7,109	40.6
USMC -----	43	497	3	0	593	3.1
VNAF -----	1,292	1,153	1,533	1,012	4,990	28.6
Total -----	5,867	4,165	5,739	1,703	17,474	

(Source: SEADAB)

Table VI-3. Distribution of B-52 Sorties in SVN, April-June 1972

	MR-1	MR-2	MR-3	MR-4	Total SVN	NVN Cambodia Laos
April -----	554	691	363	0	1,608	198
May -----	842	991	363	44	2,223	67
June -----	1,503	503	161	40	2,207	543

Source: PACAF Southeast Asia Summary

Table VI-4. USAF Combat Losses in Southeast Asia

Data	South Vietnam	Sub-total	North Vietnam, Laos, Cambodia	Sub-total	Total
March 72 -----			2 F-4, 1 A-1, 3 OV-10, 2 AC-130, 1 HH-53	9	9
		0			
April 72 -----	2 F-4 2 OV-10 1 O-2 1 EC-47 2 C-130 1 HH-53 1 EB-66	10	5 F-4 1 RF-4 1 F-105	7	17
May 72 -----	4 F-4 2 A-37 3 A-1 1 AC-119 3 OV-10 5 O-2 3 C-130	21	9 F-4 1 F-105	10	31
June 72 -----	1 F-4 1 A-1 3 O-2 1 AC-130 2 OV-10	8	10 F-4 2 A-1	12	20

(Source: USAF Management Summaries)

The varied elements of airpower used in South Vietnam were complementary. The B-52's, the fighter-bombers, the gunships, the forces of the other Services—each brought distinct and reinforcing capabilities in responsiveness, precision, ordnance, and all-weather delivery. As a result, the overall contribution of the air weapon was greater than the sum of its parts. Pivotal in managing the whole was the command and control system, developed about the USAF idea of single management. Flexibility and coordination over the target itself remained the special task for the erstwhile FAC's, who faced almost constant threat of ground fire. Enormously significant was the role of the air transport force, keeping the countrywide logistics systems going, and performing the monumental resupply operations into An Loc and Kontum. Other air elements—the rescue helicopters, the electronic and photo reconnaissance aircraft, the command and control aircraft, and the KC-135 tankers—made significant contributions to the overall purpose. Without the intervention of U.S. airpower, the 1972 Spring Offensive would have had a very different and much less satisfactory ending.

The men of the 1972 United States Air Force considered themselves military professionals. Aircrewmen were conscious of the enormous

firepower at their disposal; all were dedicated to apply it effectively, when necessary, taking added personal risks to assure that friendly forces were not harmed. Behind the tabulations of sorties lay a herculean effort by Air Force ground personnel—the aircraft and engine mechanics, the supply specialists, the weapons and ordnance men, fuels personnel, and base support troops. The labors of every ground airman pointed toward the moment when the fighter-bomber pilot gave the "thumbs up"—the signal for chocks away, ready for taxi. That gesture captured in microcosm, the spirit and the skills of the United States Air Force and its men.

Glossary

AAA	Anti Aircraft Artillery
ACSC	Air Command and Staff College
AK-47	Russian made machine gun
ALO	Air Liaison officer
ARVN	Army of Vietnam (South)
AWADS	All Weather Aerial Delivery System
AWC	Air War College
CDS	Container Delivery System
DASC	Direct Air Support Center
DMZ	Demilitarized Zone
DRV	Democratic Republic of Vietnam (North)
EWO	Electronic Warfare Officer
FAC	Forward Air Controller
GCA	Ground Controlled Approach
LGB	Laser Guided Bomb
LZ	Landing Zone
MAC	Military Airlift Command
MACV	Military Assistance Command Vietnam
MAG	Marine Air Group
NCO	Non-Commissioned Officer
NVA	North Vietnamese
POL	Petroleum, Oil, Lubricants
RVNAF	Republic of Vietnam Armed Forces
SAC	Strategic Air Command
SAM	Surface to Air Missile
TAC	Tactical Air Command
TOW	Tube-launched, Optical-tracked, Wire-guided anti-tank missile
VNAF	Vietnamese Air Force



Index

Abrams, General Creighton W., 17, 81, 103
aircraft:
A-1, 11-12, 37, 41, 44, 47, 50, 61, 75, 79, 98
A-4, 16-17, 100, 105
A-37, 11-12, 56, 75, 79, 81, 85, 98, 100-101
AC-47, 13
AC-119, 13, 91-93, 95, 97
AC-130, 13, 19, 44-45, 53-55, 64, 70, 72, 79-80, 86, 92, 94-95, 97-98, 104
B-52, 13, 26-31, 41, 47, 52, 56, 61, 72, 74-76, 81-86, 98-101, 103-105
B-57, 11
C-5, 56-57
C-7, 14
C-123, 14, 61, 68-70, 86
C-130, 13-14, 16, 25, 30, 44, 56, 61, 67-71, 78, 87-92, 97, 100, 104
C-141, 19, 21, 67, 74
EA-6A, 16
EB-66, 19-20, 31, 35
F-4, 9, 11-12, 16, 19, 22, 24-25, 30, 34, 46, 50, 54, 56, 63, 73, 79, 85, 98
F-5, 12, 79
F-100, 9
F-105, 19, 30
HH-53, 42, 50, 97
KC-135, 13-14, 24-25, 29, 86, 105
O-1, 12, 46, 63
O-2, 12, 46, 63, 81, 95, 98-99
OV-10, 12, 31, 33-36, 39-40, 45, 52, 54, 63, 72-73
UH-1, 39, 72, 74, 99, 102
airlift, 56, 61, 67-72, 86, 100
An Loc, 9, 25, 70, 77-78, 80-81, 85-88, 90-92, 95, 97-99, 103-105
Atchison, Captain Richard M., 31, 39-40
AWADS, 26, 71-72
Baker, Major Gary S., 56
Beaubien, First Lieutenant James W., 100-101
Bellamy, Brigadier General Jack, 24
Ben Het, 72
Bond, Lt Colonel Charles W., ix
Bounds, Lt Colonel Malcolm S., vii
Bowers, Colonel Ray L., vii
Brookbank, Major, 46
Buckner, Lt Colonel Eugene T., ix
BULLET SHOT, Operation, 27
Byra, Major Ed, 91
Caldwell, Captain Bill, 87-89
carriers, aircraft (USN):
Constellation, 17-18
Coral Sea, 12
Hancock, 12
Kitty Hawk, 17
Midway, 17
Saratoga, 17
Chinook, 70, 86
Citadel, The, 47, 49-51
Clark, Mark, 40-43
Clay, General Lucius D., Jr., 26-27
close air support, 46-47, 49, 56
CONSTANT GUARD I, II, III & IV, 19, 24-25, 71
container delivery system (CDS), 86-87, 89-90
Cornett, Mr Loydd H., Jr., vii
Dak To, 4, 13, 59, 61, 63-65
DMZ, 3-4, 13, 31, 34, 36, 41, 53
Doglione, Colonel John A., viii
Dong Ha, 47-48
Edgar, Lt Colonel Norman, ix
Elmore, Captain Ashby D., vii
Evers, Lt Colonel Robert L., ix
FAC, 12, 34, 39, 41, 44-47, 49-50, 52, 66, 73, 81, 99-100, 105
Fast FAC, 46
Fire Base NANCY, 51
Fisher, Colonel Harold B., 46

Ford, Colonel Walter T., 86
 Frizzel, Colonel Donaldson D., vii
 Giap, General Vo Nguyen, 2
 Goodman, Colonel Tyler G., 15
 GRADS, 89–91
 Griffith, Captain Rodney S., 50
 Hall, Lt Colonel George F., 92
 Hambleton, Lt Colonel Icelal E., 36–37,
 39–40, 43
 Harding, Lt Colonel James R., x
 Henderson, Bill, 40–41
 Hering, First Lieutenant John, 87
 Hildreth, Colonel James R., 19
 Hines, Lt Colonel Frank T., x
 Hogg, Colonel Donald T., vii–viii
 Hollingsworth, Major General, 98, 103
 Hue, 49, 51, 56, 58
 interdiction, 46
 Josue, Colonel Andy, 69–70
 Joy, Major James R., 49
 Kardong, Lt Colonel Gabriel A., 34, 36
 Kempton, Captain Jimmie D., 36, 39
 Kimball, Colonel Richard D., viii
LAM SON 719, 2
 La Pointe, Sergeant, 50
 laser guided bomb (LGB), 54, 56
 Lentz, First Lieutenant Richard A., 87
 Loc Ninh, 9, 77–80, 85
 LORAN bombing, 39–40, 45–46
 Lowe, Mr Robert B., vii
 Military Airlift Command, 15, 19, 25
 Manion, Sergeant Daniel G., 51
 Marines, 1, 16, 30, 43, 46–47, 58, 67, 100
 Marine Air Group, 100
 Massimini, Captain Vince, 100
 McAleece, Sergeant Dave, 88–89
 McFadden, Colonel Julian R., viii
 McGiffert, Brigadier General John R.,
 103
 Miller, Colonel Bill, 90
 Minh, Lt General Nguyen Van, 80, 104
 Momyer, General William W., 23
 monsoons, 31
 Monville, Staff Sergeant Floydd J., 68–69
 Mulkey, Lt Colonel Reed, 68
 Mullenix, Captain David E., 49
 Navy, 12, 30, 40, 58, 67, 105
 Nixon Doctrine, 1
 Nixon, President R. M., 1, 2, 9, 105
 Olson, Captain Russel T., 64, 66
 Opitz, Lt Colonel Stephen, 94–95
 organizations:
 3rd Brigade, 1st Cavalry Division, 81
 3rd Tactical Fighter Wing (TFW), 15
 4th Infantry Division, 59
 4th TFW, 19, 23
 5th Air Force, 15
 8th Special Operations Squadron
 (SOS), 79, 100
 8th Tactical Fighter Squadron (TFS),
 25
 8th TFW, 16, 24, 54
 11th Airborne Battalion, 62
 21st Tactical Air Support Squadron
 (TASS), 100
 35th TFS, 15
 36th Tactical Airlift Squadron (TAS),
 25
 37th Aerospace Rescue and Recovery
 Squadron (ARRS), 49
 49th Combat Support Group (CSG),
 24
 49th TFW, 24, 105
 50th TAS, 68
 58th TFS, 24
 61st TAS, 71
 81st Airborne Ranger Group, 103
 308th TFS, 24
 334th TFS, 19, 23
 336th TFS, 19, 23
 366th TFW, 16
 374th Tactical Airlift Wing, 25, 69–70
 417th TFS, 24–25
 561st TFS, 19
 Attack Squadron 311, 17
 Marine Air Group 12, 100
 Patterson, Sergeant William B., 44–45
 Peters, Captain Bill, 100
 Pfaff, First Lieutenant Terry, 63–64
 Pleiku, 4, 59–60, 63–64, 67–68, 75
 Quang Tri, 4, 16, 31, 37, 46–47, 49–50, 58
 Ralph, Colonel John E., 23
 Rapp, Colonel John M., ix
 reconnaissance, 3, 46
 rescue, 36, 38, 41, 49
 Russian military equipment, 4–7
 SA-2, 34, 44
 SA-7, Strela, 4, 43–44, 53, 97, 99
 Sanders, Technical Sergeant Jon, 88
 Scott, Major Jackson R., 49–50
 Semington, Captain Richard, 67
 Shaub, Technical Sergeant Charlie,
 88–89
 Smith, Captain Rocky O., 39–40
 Smith, Captain "Zippo", 79, 95
 SNAKEYE, 11
 Stein, Lt Colonel Edward J., 100–101
 Strategic Air Command, 13, 26, 29

Stratton, Lt Colonel Ray E., 51-52, 54
Sutton, Captain Don A., 50
Sweeney, Major W. T., 47
TACS, 32-34, 63
Tactical Air Command, 15, 17, 19, 105
 tanks, 4-6, 41, 47-49, 51, 53-54, 56, 64,
 74, 79-81, 95, 98-99, 102
TASK FORCE ALPHA, 39, 41, 45
Thieu, President Nguyen Van, 80
Thompson, Sergeant William J., 51
TOW, 73-74
trans-Pacific deployment, 15, 17, 23-24
Truong, Lt General Ngo Quang, 51
Turley, Lt Colonel G. H., 47
Ubon AB, Thailand, 23, 64, 66
Van Brussel, Colonel Peter, 68
Vann, Mr. John Paul, 62, 67
Vogt, General, 52
Walden, Colonel Ray Y., ix
Weimer, Captain John R., 50
"Wild Weasel", 19
Wustner, Colonel Lorenz F., ix